CUL-H03106-11-P24375

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AGRA UNIVERSITY JOURNAL OF RESEARCH

Vol. XVIII, Part I *LETTERS* **January, 1970**

Abbr.—*Agra. Univ. J. Res.* (*Letters*)

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PUBLISHED BY
THE REGISTRAR, AGRA UNIVERSITY,
AGRA, 1970.

Annual Subscription : Inland Rs. 12/- ; Foreign Rs. 15/-

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P 14375

Edited by Dr. R. N. Saksena, D.Litt., Director, Institute of Social Sciences, Agra University, Agra, Published by Shri Chandra Sen, Offg. Registrar, Agra University, Agra and Printed by Mr. H. K. Kapur, Agra University Press, Agra. 445—(J 4694)

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FARM CREDIT AND FARMER'S ATTITUDE*

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INTRODUCTION

The revolutionary thrust of advancing knowledge has brought significant changes in the system of farm financing, farm production, marketing and other functions of business. In the beginning of the present century, it was considered that facile credit (i.e. agricultural credit) would solve the problem of the farmer's indebtedness, will gradually further minimise his credit needs by improving economic position and that the farmer will be able to carry on farming operation from his own investment and would not require outside financial help. Therefore, farm credit was given to the credit-worthy people on the basis of Haisyat. But this view has been changed. Now it is believed that as farming becomes more and more commercialised, there would be greater and greater need for credit to enhance the production. Thus trend has been changed from credit-worthiness to credit-worthy use. As commercialised agriculture requires more investment in capital and also requires huge amount of cash to maintain the level of production, it is not possible to meet all the expenses of the farming from the farmer's own resources, the farmer will require more credit even in commercialised farming.

Changes in many accepted beliefs and attitudes will inevitably follow as economic development will proceed. But to accept responsibility to promote rapid economic development in general and agricultural development in particular, implies an effort to change beliefs and attitudes. All efforts to bring economic development will fail, or bring only limited results, if farmers do not hold a favourable attitude towards these programmes and cooperate with these programmes.

It is, therefore, important to study and develop understanding about the beliefs and attitudes which are likely to act as obstacles to these changes, or which might be used to promote these programmes. With these things in mind the present study has been undertaken.

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* Author is grateful to Dr. D. S. Chauhan for his guidance, to Mr. Yogendra Nath Roy for his help in the field work and to Prof. C. R. Das for his assistance in correcting the paper.

THE SCOPE, DESIGN AND METHOD OF WORK

The study relates to one village 'Nonpur' located under the jurisdiction of L.S.S. Midhakur Ltd, District Agra, U.P. The total number of farmers in this village is 96, out of which 25 members have been selected by disproportionate randam sampling method for the study in detail. The reference period is from 30.6.63 to 30.6.67. The nature of sample cases, which form the basis of enquiry is as follows:

TABLE 1

Size groups	Size of holding (in acres)	Total No. of farmers in each group	No. of farmers selected from each group	% of cases selected
A	0–5	33	9	27
B	5–10	41	10	24·3
C	10–15	15	4	26·6
D	15–above	7	2	25·7

The present study covers the following aspects :

1. Considerations of borrowings, 2. Credit agencies, 3. Role of institutional credit, 4. Attitude of farmers towards different credit agencies, 5. Risk-bearing capacity in relation to credit, 6, Pattern of utilization, 7. Diversion from one head to another. 8. Utilization of production potential, 9. Methods of repayments. 10. Sources of repayment, 11. Extent of repayment, 12. Extent of indebtedness, 13. Impact of indebtedness on farm enterprize, 14. Use of credit as a developmental factor, 15. Main difficulties in building up proper attitudes, 16. Change in the attitude of farmers (from past to present), and 17. Suggestions.

For the collection of data, unstructured questionnaires were used. The information has been collected by interviewing the cases and from their records, statements and opinions.

MEASUREMENT OF FARMERS' ATTITUDE TOWARDS CREDIT

(a) *Concept of credit Need*

Generally farmers have to borrow for meeting the cost of their capital investment, viz; land building, machinery, agricultural implement and livestocks etc. Farmers require working capital which comprises of seeds, manures, fertilizers, feeding stuff and money for wage payment to labourers etc. Farmers borrow for agricultural operations or for investment to raise output.

By and large the majority of farmers is not in a position to meet the whole of capital requirement in carrying on agricultural operations and a part of it must, therefore, be obtained from outer agency. The amount of financial requirement met from outside his family sources is termed as credit.

(b) *Measurement of attitude towards Credit*

An attitude sometimes is defined as a 'tendency to react in certain ways towards a designated class of stimuli'. It is evident that when so defined, an attitude cannot be observed directly, but must be inferred from overt behaviour both verbal and non-verbal. However, to be more objective to measuring the attitude of farmers towards credit, we may know the degree of favour and disfavour of farmers regarding credit in the following terms: whether farmer takes credit with the specific purpose of production and utilises it for that purpose, the basic motive for credit and the successive action on it. If he does not utilise the credit for that purpose, what are the reasons for the lapse. Whether he takes credit for maximisation of production or only to overcome bad time, i. e., how he looks at it. If credit has not been taken by a farmer at all, was it because he was able to carry on his agricultural operation, or he thinks that credit is a bad thing, undermines his social position, and by this consideration, he does not take credit even if his agricultural operation suffers from inadequate finance.

There are some questions which we have considered at the time of measuring attitudes of farmers towards credit. From the opinion, statements, gestures and expressions we have tried to judge the degree of favour and disfavour regarding credit.

(c) *Area of Study*

We have studied farmer's attitudes in many fields but the area of the present study is confined to farmer's attitude towards credit. This has been studied in respect of the outlook towards purpose of borrowing, farmers relationship with different agencies, demand pattern of credit, pattern of utilization and other aspects.

(d) *Criteria of Measurement*

We have adopted the following criteria in the present study, to measure the farmer's attitude:

(i) *Extent of borrowing for developmental purposes*—If the major portion of credit has been borrowed for agricultural production and maximum utilization of land, labour and livestocks, we have considered his attitude towards credit as progressive, or developmental. On the other hand, if he is borrowing for non-agricultural purposes and consumption, we have considered his attitude towards credit as non-developmental.

(ii) *Extent of utilization of loan for agricultural improvement*—If they have utilized credit for durable agricultural improvements, the attitude of farmers and towards credit has then been considered as developmental. On the other hand if the extent of credit utilization is higher in consumption and non-agricultural activities, it has been taken that he treats credit only as a means of meeting the deficit in his subsistence economy.

(iii) *Extent of Repayment*—The farmers who have repaid credit from their own sources have been taken as progressive and who have not repaid or have repaid credit by selling cattle and borrowing, they have been taken as non-progressive.

PURPOSE OF BORROWING

(i) *Total Available Credit*

The enquiry relating to the availability of total credit brought out the following result:

TABLE 2

Showing the total credit available per member (per farm)

Size Group	No. of cases	Size of holding in Acres	Net cropped area in Acres	Total cropped area in Acres	Total credit available from all sources		
					Per Farm Rs.	Per acre Net cropped area Rs.	Per acre Total cropped area Rs.
'A' (0–5)	9	4·11	5·88	7·22	417·77	71·05	47·87
'B' (5–10)	10	8·4	8·4	10·4	490·00	58·38	47·1
'C' (10–15)	4	13·5	13·5	16·5	800·00	59·25	48·42
'D' (15 & above)	2	51·5	51·5	69·5	1700·00	33·01	26·07
All cases	25	11·16	11·8	14·65	610·4	59·69	43·29

The above table shows that on the whole the total credit available comes to Rs. 610/- per farm, Rs. 60/- per acre of net cropped area, and Rs. 43/- per acre of total cropped area. The situation in the case of different groups of farmers was found to be as follows :

Size Group 'A' (0-5 acres)

These are small cultivators having an average 4·11 acres of holdings. The total available credit per farm was Rs. 417·77; and in relation to per acre of net cropped area and per acre of total cropped area it comes to Rs. 71·05 and Rs. 47·87 respectively. In this group the total availability of credit per acre of net cropped area is the highest in comparison to that in other groups. The fact of high borrowing in the case of this group is not an indication that these farmers have invested more credit in farm business. But the main causes of high borrowing may be explained thus; some members have borrowed for financing trade and business, some other families whose economies are deficit and which have, therefore, borrowed more funds for consumption. It will be seen in table 3 that the proportion of borrowing in the group is less for agricultural purposes than for non-agricultural purposes.

Size Group 'B' (5-10 acres)

The average size of holding in this group was 8·4 acres, the net cropped area was 8·4 acres and the total cropped area was 10·4 acres. The availability of the credit per member was Rs. 490/-, and Rs. 58·38 and Rs. 47/- per acre of net cropped area and per acre of total cropped area respectively.

Size Group 'C' (10-15 acres)

In this case the total available credit per member was Rs. 800/-. Availability of credit per acre of net cropped area and per acre of total cropped area comes to be Rs. 59·25 and Rs. 48·42 respectively.

Size Group 'D' (15 acres and above)

The average size of holding in this group was 51·5 acres. The total availability of credit per member was Rs. 1700/- which is the highest in all the groups; but the total availability of credit in terms of per acre of net cropped area and per acre of total cropped area was very much less than that in other three groups. It worked out to be Rs. 33·01 and Rs. 26·07 respectively. The lower proportion of availability of credit does not indicate that this group does not concentrate on agricultural activities. The causes of low proportion of credit per acre of net cropped area and per acre of total cropped area is the large size of holding in this group which reflected these differences though the per farm borrowing is highest in this group.

In general the variation in the proportion of availability of credit per acre of total cropped area is not significant except in group 'C'.

(ii) Purpose of Borrowing in Relation to size of Farms

The main purposes for which credit was taken were found to be as follows :—

A—*Agricultural Purposes* :

1. Purchase of bullocks and milch cattle.
2. Farming expenses which include purchase of seeds, manure fertilizers, payment of wage and payment of irrigation charges etc.
3. Durable agricultural improvements; which include items like digging of well, Rohat, filling etc.

B. *Non-Agricultural Purposes*:

1. Consumption.
2. Payment of old debts.
3. Business and trade etc.

On the whole, in this village, the total credit borrowed for different purposes per member or per farm worked out to be nearly Rs. 600/- (610·4).

Of this Rs. 460·04, or 75·42% was taken for agricultural purposes and Rs. 150/- or 24·28% for non-agricultural purposes. It should, however, be remembered that all the cases investigated were of agriculturist members.

Size Group 'A' (0-5 acres)

The above table indicates that in this size group the total borrowing for agricultural purposes was Rs. 201·11, or 48·14% of the total borrowing. For bullocks and milch cattle it worked out to be Rs. 72·73 or 17·2% and for farming expenses Rs. 128·88 or 30.95%.

For non-agricultural purposes the amount for this group has been Rs. 216·66, or 51·86% of total borrowing; for business and trade purpose Rs. 50/- or 11·91% and for consumption purpose Rs. 166.66 or 39·94%. In this group borrowing for consumption purposes is higher than that of the other three groups. This is because some members of this group, due to having deficit economy, have borrowed for family consumption. The percentage of borrowing for consumption is 39·94% of total borrowing which is considerably higher than that of other three groups. Borrowing for business and trade is a peculiar feature in this group. The reason for this is that some of the members of this group are shoe-makers, for them this occupation is equally important as agriculture. On the whole borrowing for non-agricultural purposes is more than that for agricultural purposes in this group.

Size Group 'B' (5-10 acres)

In size group 'B' the total borrowing for agricultural purposes has been Rs. 330/- or 67·35%. For purchasing of bullocks and milch cattle Rs. 120/-, or 24·48%. For current agricultural expenses Rs. 140/-, or 28·58% and for durable agricultural improvements Rs. 70/-, or 14·28%.

In this group borrowing for non-agricultural purposes has been Rs. 160/-, or 32·65% of total borrowing; for a consumption purpose Rs. 90/-, or 18·38% and for payment of old debts Rs. 70/- or 14·28%. The borrowing for payment of old debts is the peculiar feature in only this group. The reason is that one of the member has taken loan from the cooperative society to repay the old debt of a money-lender, because the rate of interest of this loan was 30%. If we compare the borrowing for agricultural and non-agricultural purposes, the percentage of borrowing for agricultural purposes is twice of that for non-agricultural purposes.

Size Group 'C' (10-15 acres)

In size group 'C' the total borrowing for agricultural purposes has been Rs. 750/- or 93·75%. The purposes for which credit has been taken are: purchase of bullocks and milch cattle Rs. 275/- or 34·37%. Current agricultural expenses Rs. 300/- or 37·5% and for durable agricultural improvement Rs. 175/-, or 21·88% respectively. The borrowing for non-agricultural purposes is very much less which worked to be only 6·25%.

TABLE 3

Showing the total Credit Borrowed purposewise by farmers in each group
(Per member per farm)

Sl. No.	Purposes	'A' (0–5 acres)		'B' (5–10 acres)		'C' (10–15 acres)		'D' (15 and acres above)		Average of all cases	
		Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%
1.	Bullock & Milch cattle	72·23	17·2	120	24·48	275	34·37	200	11·76	134	21·93
2.	Farming expenses (Current)	128·88	30·95	140	28·58	300	37·5	1300	76·48	254·4	41·69
3.	Durable agricultural improvements	...	...	70	14·28	175	21·88	200	11·76	72	11·86
4.	Business & Trade	50·00	11·91	...	...	...	...	...	...	18	2·95
5.	Consumption	166·66	39·94	90	18·38	50	6·25	...	...	104	17·03
6.	Payment of old debt	...	...	70	14·28	...	...	...	...	28	4·54
7.	Total Agricultural	201·11	48·14	330	67·34	750	93·75	1700	100	460·4	75·42
8.	Total non-Agricultural	216·66	51·86	160	32·66	50	6·25	...	...	150	24·58
	Total	417·77	100	490	100	800	100	1700	100	610·4	100

Size Group 'D' (15 acres and above)

In this group borrowing has been only for agricultural purposes. For the purchase of bullocks and cattle Rs. 200/-, for farm expenses Rs. 1300/-, and for durable agricultural improvement Rs. 200/-. They constitute 11·76%, 76·48% and 11·76% of total borrowing respectively.

From the above, it can be concluded that:

1. As the size of holding increases the percentage of borrowing for agricultural purposes is found to be increasing and;
2. Small farmers seem to have comparatively more requirements for non-agricultural purposes in which consumption needs were found to be dominant.

(iii) *Considerations for Borrowing*

Considerations for borrowing are different in different size groups, and they differ from individual to individual. In size group 'A', which is the group of small farmers, consideration of borrowing for consumption is dominant. Some of the members have borrowed money for financing business and trade because for them agriculture and trade and business are of the same economic significance.

Borrowing for purchasing livestock is the common feature in all the size groups; and it worked to be 17·2%, 24·48%, 34·37% and 11·76% in groups 'A', 'B', 'C' and 'D' respectively. On an average borrowing for livestock comes to 21·93% of total borrowing. The borrowing for the purchase of livestock is dominant in each size group because in this locality keeping of livestock specially dairy, is the main subsidiary occupation of farmers.

When we take the overall picture of the borrowing, we find that the main considerations for borrowing for farmers is the carrying on agriculture (current expenses)at the present level of efficiency, and not agricultural development and modernisation of agriculture.

The major determinant of agricultural development is the rate of capital formation. If we include the purchase of bullocks and milch cattle, as a form of capital, it has increased on the whole, since 33·79% of credit has been taken for this purpose. But in reality, credit has been taken only to the extent of 11·86% for durable agricultural improvement in general, and 14·28%, 21·88% and 11·76% in the case of the different groups, A, B, C and D. The investment in durable agricultural improvements was made only by one person in each group. Hence on the whole rate of capital formation is unsatisfactory.

Though 75·42% of credit has been taken for agricultural purpose, the study reveals that most of the farmers have taken it for agricultural operations, and not for tiding over the lean times, nor for bridging the gap of deficit economy.

There seems to be a significant change in the demand for credit. Previously credit was considered as a means of bridging the gap, or to overcome bad times. But now the main consideration for borrowing is to carry on agricultural operation, though not for agricultural development or modernisation as such. Thus a change in the attitude of farmers seems necessary so that credit may be a dynamic instrument for modernisation and economic development.

RELATIONSHIP OF FARMERS WITH DIFFERENT CREDIT AGENCIES

(i) *Credit Agencies*

The agencies from which the credit needs of the farmers were satisfied were found to be as follows :

1. Co-operative.
2. Private Money-lenders
3. Government.

(ii) *Amount Borrowed from Different Agencies*

The amount borrowed from different agencies during the period under reference was as follows :

The fore coming table 4 shows that out of the total borrowing of Rs. 610·4 per farmer, Rs. 412·4, Rs. 126 and Rs. 72 were borrowed from co-operative, money-lenders and Government respectively. On an average the co-operative society supplied 67·57% of the total credit and money-lenders and Government supplied 20·64% and 11·79% respectively. The above table shows that the co-operative society has a dominant position in supplying credit which is 2/3 of the total credit of the farmers.

In the village under study there are two professional money-lenders. The money-lenders are not outsiders but are farmers who are well-to-do and have sufficient income from agriculture and other sources as service, etc. Money-lenders advanced money by two systems:

1. Sawaiya or grain loans on 1¼ basis.
2. Interest, or cash on a fixed rate of interest.

In Group 'A' which is the group of small cultivators having 4 acres of average holding, the total borrowing from co-operative comes to Rs. 2,100 and from money-lenders to Rs. 1650, and thus the proportion of percentage comes to be 56·1% and 43·9% respectively. From the above table it is clear that the amount supplied by money-lenders is the highest in comparison to that in the other three groups. The main cause for highest borrowing from money-lenders in this group is their deficit economy. As the co-operative society lends credit for production purposes and maximum credit limit of a farmer is fixed by his production pattern (as these farmers have small holdings) the maximum credit limit of borrowing is very low in comparison to their requirements.

If any time these farmers need more expenses on certain social obligations as marriage, shradh (death ritual) or household contingencies, etc., or even if they wish to purchase bullocks, they require money which is not available

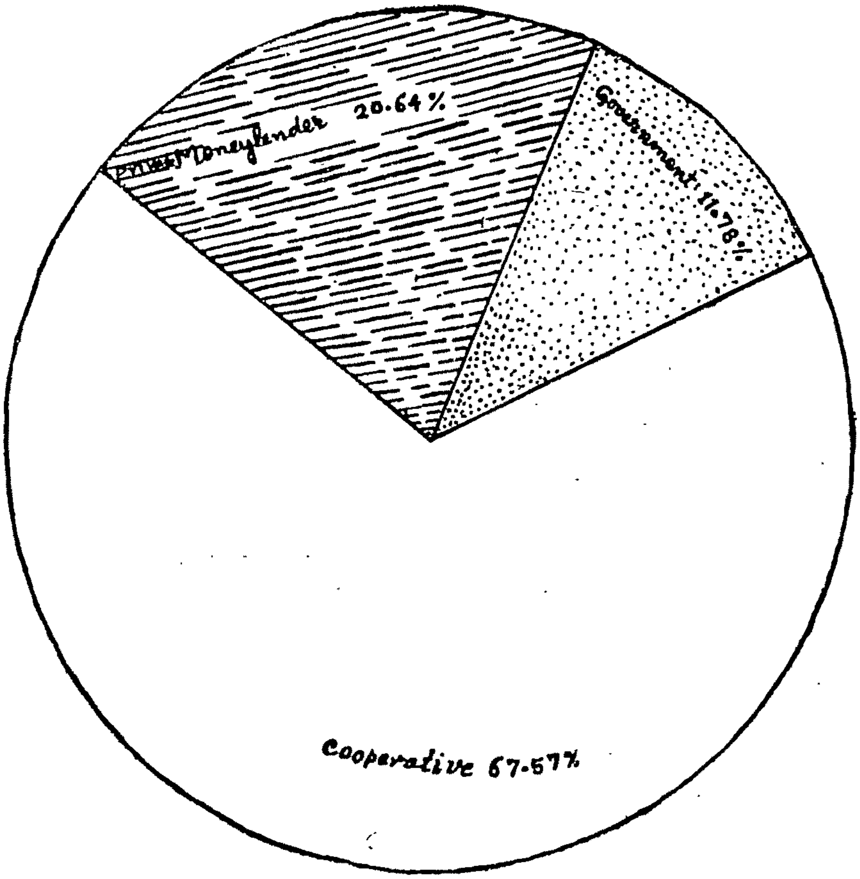
TABLE 4

Showing the amount and proportion of credit supplied by different Agencies
(July, 1963—June, 1964)

Size Groups	No. of cases	Total Borrowing	Total borrowing and proportion of credit supplied by different agencies					
			Co-operative		Moneylenders		Government	
			Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%
'A' (0–5 acres)	9	3750	2100	56·1	1650	43·9	...	...
'B' (5–10 acres)	10	4900	3200	65·3	1000	20·4	700	14·3
'C' (10–15 acres)	4	3200	2000	62·5	500	15·62	700	21·88
'D' (15 acres & above)	2	3400	3000	88·24	...	...	400	11·76
Average for all cases	25	610·4	412·4	67·57	126	20·64	72	11·79

from Co-operative society. And this forces them to approach village, money-lenders. Similar is the case which was found in Group 'B' and 'C' which have been borrowed from money-lenders.

Credit Supplied by Different Agencies



In size group 'B' total borrowing from co-operative is Rs 3,200/- and from money-lenders and Government Rs. 1000/- and Rs. 700/- respectively. The proportion of credit supplied by co-operative, money-lenders and Government comes to 65·3%, 20·4% and 14·3% respectively. In group 'C' the total money supplied by co-operative is Rs. 2,000/- and supplied by money-lenders and Government Rs. 500/- and Rs. 700/- respectively. Thus the proportion of each agency comes to 62·5% by co- operative, 15·62% by money-lenders and 21·88% by the Government. The role of institutional credit is 74·38%. In group 'D' the total borrowing from co-operative is Rs. 3,000/- and from Government Rs. 400/- respectively. The percentage of the proportion of credit from these agencies are 88·24% and 11·76% respectively. In this group proportion of borrowing from co-operative is the highest in comparison to that of other three groups.

From the above results it may be concluded that the impact of money-lenders as supplier of credit becomes less as the size of holding increases. Role of co-operative as supplier of credit and Government has increased in the case of bigger farmers.

On the whole the contribution of money-lenders as supplier of credit is 20·64% which shows a declining trend, but still it has a sufficiently strong position in lower strata 'A' and the proportion of credit supplied by it is still 43·9%. It is clear that the importance of money-lender has decreased.

ATTITUDE OF FARMERS TOWARDS DIFFERENT CREDIT AGENCIES

Attitude of farmers towards the different sources of credit differs according to their experiences in dealing with them.

In the case of co-operative society, general complaints of the farmers were group and caste favouritism and political conflict between factions in the affairs of society's management. Sometime loan is not granted to particular members for this reason. This is the reason that though co-operative society holds a dominant position in the field of supplying credit, still it is far from being a vital part of the villager's life. A considerable section of farmers looks upon it as a governmental organisation, something alien to the village and not fully dependable. But still they prefer it because rate of interest is cheaper here in comparison to that of other agencies.

In the case of government as lending institution, it has been found in the village under study, that most of the farmers have fear of taking loan from it. The cause of this psychological fear as stated by some educated farmers of this village were related to inadequacy of amounts given, delay in applications, illegal gratification required to be paid for obtaining loans, and loss of time and inconveniences for expediting disposal by visiting revenue and block officials. The rigidity of enforcement is also another cause.

Attitudes of farmers towards money-lenders were found strongly antagonistic. The causes of this as narrated was that the previous money-lender was a big landlord, who had adopted various unjust methods and was successful to grab the land of some of the farmers. Still the money-lending profession is followed by the family of this landlord. Another cause of this antagonistic attitude of farmers towards money-lenders is the increasing sense of self and individual consciousness. Some farmers reported that for receiving loan, from money-lenders, they have to flatter him and even then he sometime refuses to grant loan. We have seen that the attitude of farmers towards money-lenders is not favourable and it is for the co-operative society to properly utilise this situation in order to break the complete hold of money-lenders.

NATURE AND AMOUNT OF CREDIT

(i) *Nature of Credit*

Nature of credit may be studied in several respects; as forms of loan in relation to period of advancement, whether loan is taken on short-term, medium-term or long-term basis. This classification has been done in relation to the period taken in the results obtained by these loans. Another classification of credit may be done according to nature of financial requirement of farmers as distress finance, operational finance and developmental finance.

Here we have classified credit according to period of advancement as short-term, medium-term and long-term credit. Types of credit which has been taken by farmers in this village were found to be as follows :—

A. Short-term. B. Medium-term.

TABLE 5

Showing the proportion and the amount of short-term and medium-term loan taken by different size-groups (per member) 1963-1964.

Size group	Average total borrowing	Short-term Rs.	Percentage	Medium term Rs.	Percentage
'A' (0–5 acres)	417·77	417·77	100	...	...
'B' (5–10 acres)	490	420	85·7	70	14·3
'C' (10–15 acres)	800	625	78·12	175	21·88
'D' (15 acres & above)	1700	1500	88·24	200	11·76

The above table shows that in 'A' group, the average borrowing is Rs. 417·77 and the whole amount (i. e. 100%) was taken as short-term loan; in 'B' group out of Rs. 490/-, the amount of Rs. 420/- (i.e. 85·7%) was taken as short-term and Rs. 70/- (i.e. 14·3%) was taken as medium-term loan. In 'C' group out of Rs. 800/-, the amount of Rs. 625/- (i.e. 78·12%) was taken as short-term and Rs. 175/- (i.e. 21·88%) as medium-term loan; and in 'D' group out of Rs. 1700/- (i.e. 88·24%) was taken as short-term and Rs. 200/- (i.e. 11·76%) as medium term loan.

Secondly, when we see the position of short-term and medium-term loans, we find that medium-term loan was taken by the members of 'B', 'C' and 'D' size groups. It means in group 'A' which is the group of small farmers, the main consideration of borrowing short-term loan is making up the gap of production and consumption requirements. But when we analyse this situation critically we find that even in the 'B', 'C' and 'D' groups only one member had taken medium-term loan. Demand of short-term credit is a special feature in every group which is 100%, 85·7%, 78·12% and 88·24% of total borrowing in A, B, C and D groups respectively. It shows that farmer's attitude for borrowing short-term credit is to make up the gaps and carrying on agricultural operation and not the future development in agriculture as such.

The main reason for not taking medium-term loan is non-availability of this type of loan. The co-operative society working in this village, had not distributed medium-term loan in the year 1963-64.

In the case of the Government which provide medium-term loan for agricultural improvement, only 3 farmers have taken such loans. Causes for not taking loan from Government is the fear in the mind of farmer that if loan is not repaid in time it might cause hardship to him and repayment will be enforced through attachment of his property. Another cause is that Governmental agencies are not easily approachable.

Borrowing of long-term credit is absent in all the groups. The causes of non-borrowing, stated by some of the farmers are that there is little scope for introducing major improvement on land as most of the farmers have small and fragmented holdings and their plots have irrigation facilities from canal and wells. In the case of big cultivators who have a desire to borrow this type of credit, but they are not borrowing because this loan is advanced against pledge of land by co-operative land mortgage bank.

(ii) *Terms of Borrowing*

Terms of borrowing have greater impact on the demand for credit. Terms of borrowing include the rate of interest, nature of security wanted for the advancement of the loan and period of repayment.

Rate of interest charged for different types of loan by different agencies has been discussed under the head of rate of interest. Nature of security wanted by co-operative credit society is personal and short-term loan is advanced on the basis of cropping pattern, whereas medium-term loan is advanced for the purpose of improvements on land, such as sinking well, repair of old ones and purchase of bullocks and Milch cattle. Period of repayment of short-term credit is one year and for medium-term credit is 3 years.

In the case of money-lenders, terms of borrowing are fixed according to the type of borrower and amount of credit. Generally money-lenders have advanced credit on personal security but for large amount they prefer immovable security, specially land. Period of repayment is flexible in the case of money-lenders because they are interested with collecting interest. Government advances tacoavi on the security of land and period of repayment is 5 years.

Terms of lending of co-operative credit society are more favourable than the other two agencies.

(iii) *Risk bearing capacity in Relation to Credit*

The factors limiting the extent of borrowing may be different in the case of different farmers. But in this village, it was found that the cause of not borrowing more is the traditional outlook of farmers towards agricultural activities. The pattern of borrowings of cultivators reflects to a large extent the agricultural economy. It was found that uncertainty or risk attached to future influenced the farmer's demand of credit. A considerable section of farmers have fear to invest credit in changing production pattern because if crops fail they will incur great loss. Changes in conditions give rise to uncertainty by upsetting anticipations. This effects the entire psychology of farmers. An element of risk creates fear, lack of hope, lack of enterprise and lack of initiative. This is the reason that farmer hesitate to undertake credit for more and more increasing output and commercialisation and modernisation of agriculture. It becomes more difficult for them to invest more credit in farm enterprise due to lack of own resources and technical knowledge. It is important to note that variability in physical production, variability in factors which fundamentally affect physical production, and variation in farm price, which determines farm incomes, have created a psychology in farmers, which is popularly termed as conservation and reluctance for innovations. Really speaking the circumstances surrounding agriculture inculcate a fear of risk to invest more in farm enterprise and such a psychology on the part of farmers is quite natural.

A close examination of the analysis presented in the previous section has shown that the demand for medium-term credit in the lower strata is nil. The cause is the non-availability of medium-term credit on the one hand and on the other lesser risk bearing capacity of these farmers. These farmers have such less risk bearing capacity in relation to credit in comparison to the big cultivators.

To change the attitude of farmers, there is a necessity of creating some economic security, or other measures which can minimise the risk, or uncertainty, and by which the psychological fear of risk can be removed. It is only possible if we can provide some concrete security to the farmers in the form of crop insurance. The case of the small farmers should be dealt with separately so that they can invest more and more credit in agriculture. It further explains as to why farmers seek safety first and returns afterwards. It brings out an important conclusion that credit can hardly play a role of developmental instrument in agricultural development, unless our agriculture is made more certain.

UTILIZATION OF CREDIT

(i) *Pattern of Utilization*

in 1963-64 the pattern of utilization of total loan taken by the sample farmers was found to be as shown in table 6 on page 16.

The table 6 indicates that in size group 'A' out of the total credit available per farm Rs. 417·77, Rs. 183·77, i.e. 44·05% has been utilized in agricultural purposes and remaining Rs. 234 (55·95%) in non-agricultural purposes. Out of Rs. 183·77, Rs. 72·93 have been utilized for purchasing of bullocks and milch cattle and Rs. 110·84 for current agricultural expenses. Thus the proportion of credit utilized for purchasing bullocks and milch cattle and for current agricultural purpose worked to be 17·47% and 26·58% of total available credit per farm respectively. Out of Rs. 234 in non-agricultural purposes, Rs. 184 or 44·1% has been utilized in consumption and the remaining Rs. 50/- or 11·85% in business.

TABLE 6

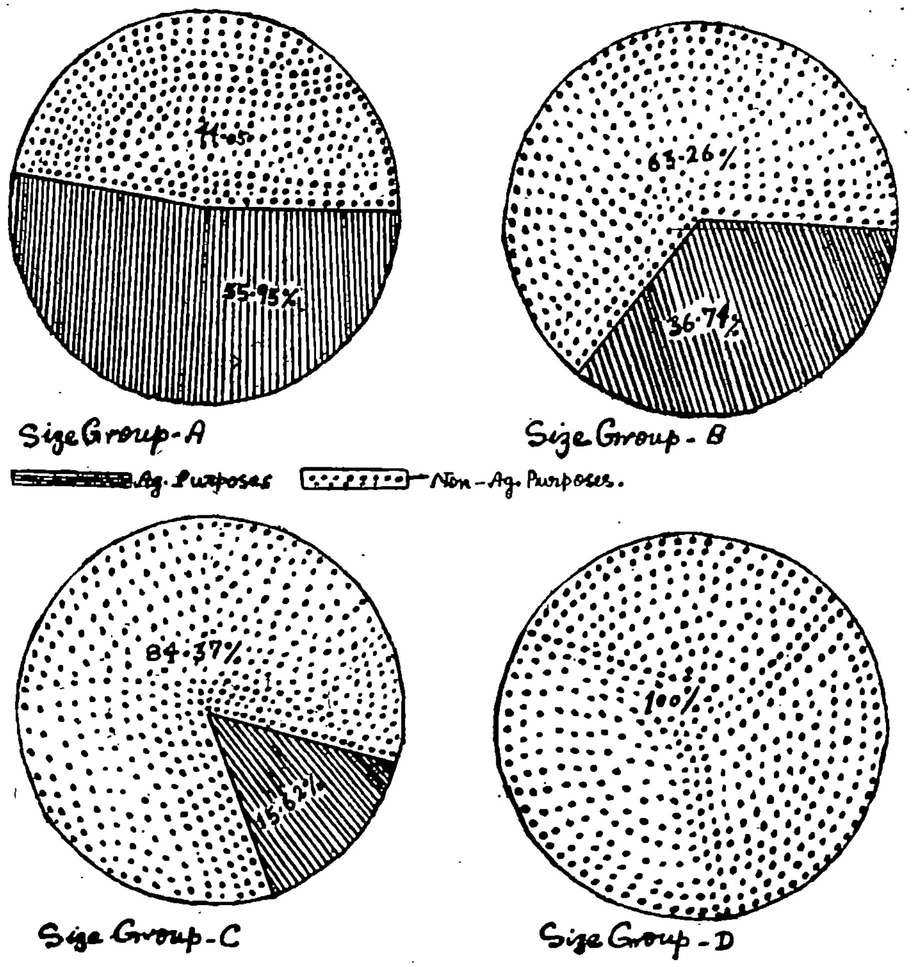
Showing the utilization of total loan in different agricultural and non-agricultural purposes in different size Groups. (Per Farm)

Purposes	'A'		'B'		'C'		'D'	
	(0–5) acres		(5–10) acres		(10–15) acres		(15 acres & above)	
	Amount Rs.	%	Amount Rs.	%	Amount Rs.	%	Amount Rs.	%
Agricultural								
1. Purchase of Bullocks and Milch cattle	72·93	17·47	120	24·49	200	25	300	17·65
2. Current Agricultural expenses	110·84	26·58	120	24·49	300	37·5	1200	70·59
3. Durable Agricultural improvements	...	...	70	14·28	175	21·875	200	11·76
Total	183·77	44·05	310	63·26	675	84·375	1700	100·0
Non-Agricultural								
1. Business	50	11·85	...	...	...	...	...	...
2. Consumption	184	44·1	110	22·46	125	15·625	...	...
3. Payment of old debt.	...	...	70	14·28	...	...	...	...
Total	234	55·95	180	36·74	125	15·625	...	...
B. F. Total Agricultural	183·77	44·05	310	63·26	675	84·375	1700	100·0
Grand Total	417·77	100	490	100	800	100	1700	100·0

Utilization of credit in non-agricultural purposes, specially in consumption purposes is the highest in this group in comparison to that in other three groups. The causes of utilization of credit in consumption purposes by this group is the deficit economy and poor economic condition of farmers, hence they have borrowed money for meeting their consumption requirements.

In size group 'B' out of the total available credit per farm Rs. 490/- Rs. 310/- have been utilized in agricultural purposes and Rs. 180/- in non-agricultural purposes. The relative proportion thus comes to be 63·26% and 36·74% respectively. Out of Rs. 310/- Rs. 120/- have been utilized for purchasing of bullocks and milch cattle, Rs. 120/- in current agricultural expenses and Rs. 70/- in durable agricultural improvement respectively. Out of Rs. 180/- in non-agricultural purposes, Rs. 110/- or 22·46% and Rs. 70/- or 14·28% have been utilized in consumption and payment of old debt respectively. When we compare the utilization of credit in agricultural and non-agricultural purposes we find that utilization of credit in agricultural purposes is nearly twice of that for non-agricultural purposes.

Utilization of Total Available Credit



Size Group-A

Size Group-B

Size Group-C

Size Group-D

In group 'C' the total available credit per farm has been Rs. 800/-, out of which Rs. 675/- i.e. 84·375% and Rs. 125/- i.e. 15·625% have been utilized in agricultural purposes and non-agricultural purposes. Out of Rs. 675/- in agricultural purposes, Rs. 200/- i.e. 25%, Rs. 300/- i.e. 37·5% and

Rs. 175/- or 21·825% have been utilized for purchase of bullocks and milch cattle, for current agricultural expenses and for durable agricultural investment. Only Rs. 125/- i.e. 15·625% have been utilized in non-agricultural purposes, specially in consumption purpose.

In Group 'D' the total amount of available credit has been Rs. 1700, and the whole has been utilized in agricultural purposes. Out of Rs. 1700/-, Rs. 300/- i.e. 17·65%, Rs. 1200/- i.e. 70·59% and Rs. 200/- i.e. 11·76% have been utilized for purposes of bullocks and milch cattle, current agricultural expenses and durable agricultural investment respectively.

From the above it can be concluded that the major portion of the total loan has been utilized for production purposes. It shows that farmers are giving more emphasis to agriculture, and thus they want to improve their agriculture. From the above it can be concluded that there has been a significant change in the attitude of farmers towards credit, i.e. credit for production purposes and not only to meet consumption requirements.

(ii) *Diversion from one Head to Another*

On seeing table 8 a slight divergence between the utilization and purpose of borrowing can be marked and it varies from group to group.

In the case of group 'A', 17·26% of loan was borrowed for purchase of bullocks and milch cattle, but 17·47% was utilized for purchase of bullocks and milch cattle; 30·95% of credit was borrowed for current agricultural expenses but only 26·58% of total credit was utilized for this purpose. In this group 39·94% of credit was borrowed for consumption purposes but 44·1% was utilized for this purpose. If we compare the diversion of credit from purpose of borrowing to utilization we find that in this group utilization of credit is slightly more in consumption purposes.

This group diverted more than any other group on consumption purposes. It shows that poor farmers continue to be in greater compelling circumstances, and are thus obliged to divert credit to unproductive and consumption purposes.

In the case of group 'B', there is no significant divergence in purposes of borrowing and the purposes of utilizations, 28·58% of credit was issued for current agricultural expenses and 24·48% was utilized for that purpose. The extent of utilization of credit for purchases of bullocks and milch cattle and durable agricultural improvement was the same as that of purposes of borrowing. For consumption purposes 18·37% of credit was borrowed but 22·46% was utilized. In this group also farmers utilized more on consumption. The cause of slight divergence of credit from productive to non-productive head is the deficit economy of some farmers who have utilized more on consumption than actually borrowed.

TABLE 7

Showing the Diversion of Credit from one head to another in actual Utilization and purpose of Borrowing in different Size Groups

Purposes	'A'				'B'				'C'				'D'			
	Utilized for		Borrowed for		Utilized for		Borrowed for		Utilized for		Borrowed for		Utilized for		Borrowed for	
	Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%
1. Purchase of bullocks & Milch cattle	72·93	17·47	72·23	17·2	120	24·48	120	24·48	200	25·0	275	275·34	300	17·65	200	11·76
2. Farming Expenses	110·84	26·58	128·88	30·95	120	24·49	140	28·58	300	37·5	300	37·5	1200	70·59	1300	76·43
3. Durable Agricultural improvements	...	...	...	...	70	14·28	70	14·28	175	21·875	175	21·875	200	11·76	200	11·76
4. Business	50	11·91	50	11·91	...	...	...	...	...	...	...	...	...	...	...	...
5. Consumption	184	44·4	166·66	39·94	110	22·47	90	18·38	125	15·625	50	6·25	...	...	...	...
6. Payment of old debt	...	...	...	...	70	14·28	70	14·28	...	...	...	...	...	...	...	...

In group 'C', 34·375% was borrowed for purchase of bullocks and milch cattle but only 25% was utilized in this purpose. The cause was that sometimes the farmers purchase bullocks and milch cattle which cost less than their previous anticipation. In this group the amount borrowed for and utilized was the same, except that a slight divergence occurred in the case of consumption purposes, 6·25% was borrowed but 15·625% was utilized in this purpose.

In case of group 'D' total loan was borrowed for agricultural purposes only. In this group farmers utilized more on the purchase of bullock than actually borrowed and utilization of credit in current agricultural expenses is less than that of borrowing.

From the above discussion it can be concluded that there is smaller extent of diversion of credit from one head to another. This shows that farmers have specific purposes in mind at the time of borrowing and they are not guided by the motive to avail credit without any specific purposes, if available on easier terms. This is an encouraging feature that credit is being related more and more to production programmes. This is an indication of both farmer's attitude and his capacity.

(iii) *Gap between the time of Issue and of Utilization*

TABLE 8

Showing the Gap between the time of issue and of Utilization of total credit in different Size Groups

Size Groups	No. of cases	No. of cases in each category			
		Within a month	Within 1—2 months	Within 2—3 months	Within 3 months & above
'A' (0—5 acres)	9	4	5	...	...
'B' (5—10 acres)	10	2	3	3	2
'C' (10—15 acres)	4	...	...	3	1
'D' (15 acres & above)	2	...	...	1	1
Total No. of cases	25	6	8	7	4
Percentage	...	24	32	28	16

From the above table it is clearly seen that 24% of the farmers utilized their loan within a period of one month, 32% of the farmers utilized credit within one to two months, 28% of farmers utilized within two to three months, and only 16% of members utilized after three months of borrowing. It means that more than half of the farmers have utilized their credit within one to two months and for the rest of the period, they have to depend upon their own sources. In this locality farmers have regular source of income from dairy, they require more money mainly at the time of sowing of crops.

(iv) *Utilization of Production Potential*

TABLE 9

Showing the agricultural situations in relation to the size of holdings

Particulars		A (0–5 acres)	B (5–10 acres)	C (10–15 acres)	D (15–acres and above)
1. Size of operational Unit		5·88	8·4	13·5	51·5
2. Area per family worker		2·2	4·3	5·57	12·875
3. Pair of Bullocks		·94	1·5	2·75	5·25
4. % of irrigated area		68·25	80·37	78·35	70·53
5. Use of Fertilizer		4·0 lbs.	3·5 lbs.	5·15 lbs.	6·0 lbs.
6. Cropping intensity		122·9	123.12	122·22	134·9
Average crop yield in the area	Wheat	13·96 mds.	13·75 mds.	14·15	13·26
	Gram	10·15 ,,	10·72 ,,	10·65	10·25

The table 9 indicates that in size group 'A', size of operational unit was 5·88 acres and the area per permanent family worker comes to be 2·2 acres. In this group only 68·25% of the land was irrigated for different irrigational sources. Cropping intensity in this group was 122·9% and use of fertilizer was found to be 4 lbs per acre. When we see the utilization of production potential, we find that there is greater scope to increase production and increase the volume of work on the farm for both cattle and man. Agriculture does not seem to be fully financed, and the scope for greater credit exists.

In group 'B', size of the operation unit was 8·4 acres, area per worker is 4·3 acres. Percentage of irrigated area was 80·37% which is higher than that in the previous group. The cropping intensity is 123·12%. Though the use of fertilizers is higher than in previous group in comparison to other two groups it was less.

In group 'D' size of operational unit was 13·5 acres and the area per worker was 5·57 acres. Percentage of irrigated land was 78·85% and the use of fertilizers was found 5·15 lbs. per acre. Cropping intensity in this group was 122·22%. In group 'D' size of operational unit was 51·5% and area for worker was found 12·875 per acre. Percentage of irrigated area was 70·53%. Use of fertilizer was found 6 lbs per acre and crop intensity was 134·9% which was the highest in all size groups.

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When we see the overall picture of the utilization of production potential particularly the data relating to production and yield we find that farming is still carried on almost subsistance level. The average yield is too low which is an indication of a great potential. Use of fertilizer is insignificant if we make a comparison with advanced countries, and even with commercialised farms in our country.

Efforts to change the outlook of farmer towards agriculture and credit are urgently called for. The volume of work can be increased to a considerable extent by increasing cropping intensity. Besides a great scope for the application of fertilizer lies in farming which is one of the major factor of increasing production.

REPAYMENT OF LOANS

(i) *Method of Repayment*

The study of method of repayment is significant in any study of attitude of farmers towards credit. If credit is assumed as a factor of development and is to be used for raising production, it should be repaid in time and in convenient instalments.

Method of repayment differs according to the kind of loan. In case of grain loans, both co-operative and money-lenders take back grain. The repayment of loan in the case of money-lenders is made in the shape of cash and kind and by pledge of the produce. Repayments are accepted by money-lenders according to condition and terms of borrowing. If money-lenders think that price of the grain will rise in near future, they would then like the borrowers to repay in kind. The co-operative society operating in this area has provided facilities to members for repaying loans in lump sum and in instalments. But it was found that farmers have repaid loans in lump sum after selling Rabi crops. It is because farmers have no regular income and if there is any, this is just sufficient to make up the gap of family expenditure. Hence the fact that payment of loans are made after the Rabi harvest only must be taken into consideration in the administration of loans. However, to make the repayments quick a change in the cropping pattern, or creation of an additional source of income, will have to be thought over.

(ii) *Sources of Repayment*

The important sources by which farmers have repaid the credit were found to be as follows:—

1. Sale of produce.
2. Sale of cattle.
3. Borrowing from money-lenders.

Table 10 indicates that in size group 'A' out of total credit of Rs. 3750, Rs. 1900, i.e., 50·5% was repaid by sale of produce, Rs. 400, i.e., 10·5%

was repaid by sale of cattle and Rs. 500, i.e., 13·3% was repaid by borrowing from money-lenders. Repayment of loan by borrowing from money-lenders is a special feature in this size group. The reason is that one farmer has repaid loan of co-operative society by borrowing from money-lenders because farmers do not want to delay in the repayment of loan of co-operatives failing which overdue interest might be charged, or enforcement of repayment might be done through court, and they do not get further loan from society.

An interesting feature of the situation is that they repaid the co-operative loan by borrowing from the private agency. They again get a loan from the co-operatives and pay back money-lenders. Thus in some cases the cycle of borrowing and repaying from money-lenders and co-operative goes on, without making productive utilization of the credit.

In group 'B' out of the total credit of Rs. 4900, Rs. 2440, i.e., 49·7% was repaid by selling of produce, Rs. 500/- i.e., 10·3% was repaid through sale of cattle. In size group 'C' out of total amount of Rs. 3200, Rs. 2140/- i.e., 66·9% was repaid by selling of produce and Rs. 500/- i.e., 15·6% was repaid by the sale of cattle. In group 'D' out of the total amount Rs. 3400, Rs. 3080, i.e., 90·59% was repaid by the sale of produce. On the whole Rs. 15250 was borrowed by all the sample cases; out of which Rs. 9560, i.e., 62 69% was repaid through the sale of produce, Rs. 1400, i.e., 9·18% was repaid through the sale of cattle, and only Rs. 500, i.e., 3·28% was repaid by borrowing from private money-lenders.

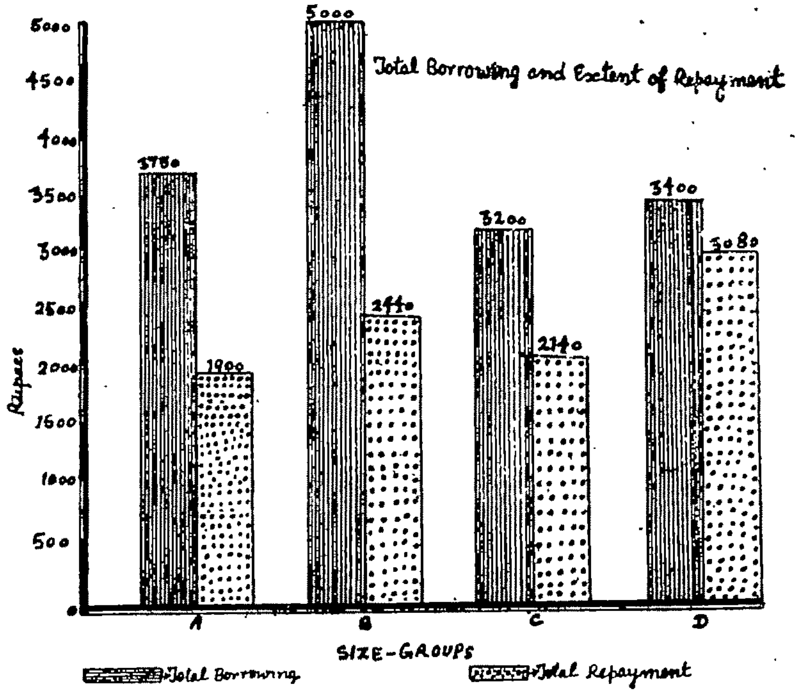
From the above discussion it is clear that the major portion of repayment was made by the sale of produce. Of course, it seems to be a healthy sign in regard to repayment, but when we examine this situation critically we find that most of the farmers have sold their produce in the mandi, or to village Baniya, though the co-operative society operating under the village studied, is linked with co-operative marketing society of Agra. In order to make quicker repayment of co-operative loans and to money-lenders, farmers have sold their produce to village Baniya or to private traders. There was a common unwillingness amongst farmers to sell their farm produce through the co-operative marketing society. In this year nobody made repayment of his loan by selling his produce through the co-operative marketing society. It was only because there are some basic difficulties experienced by farmers in selling their produce through the co-operative marketing society. Hence there seems to be a failure of the scheme of linking of Co-operative Credit with marketing. This aspect requires a prompt attention to change the attitude of farmers towards linking of credit and marketing so as to assure the full benefit of credit. Role of persuation and removal of difficulties in the way of marketing their produce to co-operative marketing cannot be denied.

TABLE 10

Showing the proportion of repayment through different sources by different size groups

Size Groups	Total amount borrowed	Repayment through selling produce		Repayment by sale of cattle		Repayment by borrowing		Extent of non-payment	
		Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%	Amount (Rs.)	%
'A' (0–5 acres)	3750	1900	50·6	400	10·5	500*	13·3	950	25·6
'B' (5–10 acres)	4900	2440	49·7	500	10·3	...	...	1960	40·0
'C' (10–15 acres)	3200	2140	66·9	500	15·6	...	...	560	17·5
'D' (15 acres and above)	3400	3080	90·59	...	...	...	...	320	9·41
Total for all cases	15250	9560	62·69	1400	9·18	500	3·28	3790	24·55
Average for all caess	610	382·4	62·69	56	9·18	20	3·28	151·6	24·55

* This amount of Rs. 500/- shows the repayment. But is not actually the repayment because it involves further debt.



Repayment by sale of cattle was a special feature in all the size groups which worked to be 10·5%, 10·3% and 15·6% in 'A', 'B' and 'C' groups respectively. It may be recalled in this connection that a considerable part of the borrowing in all the size groups was for the purchase of livestock. But still this shows that in the case of most of the farmers credit has been static. By this we mean that at the end of credit period, there does not seem to have been any net increase in the income of the farmers, or in their assets. Thus our problem is to convert the static into dynamic credit, by which is meant that at the end of the credit period there should be an improvement in income, or in the assets of farmers.

The encouraging signs shown by the present study are: 1. As the size of holdings increases the repayment through selling of farm products has increased and the main cause of the increase in relation to size of holdings is that the farmers having big size of holdings have enough production, and thus have enough money at their disposal to repay the amount of loan.

2. Repayment of loan by further borrowing is absent in all size groups except in 'A'. It is because of the fact that they have enough funds at their disposal to clear the debt.

(iii) *Extent of Repayment*

From table 11 it is clear that in group 'A', total borrowing of short-term credit was Rs. 3750, out of which Rs. 2800, have been repaid; and thus the extent of repayment worked to be 44·4%. But if we examine the sources of loan repayment, then we find that 13·3% of loan has been repaid by further borrowing which is not an indication of repayment in real sense. Hence in this group the extent of repayment worked to be 51·1% only.

TABLE 11

Showing the extent of repayment of Medium-term and Short-term loans by different size groups (Amount in Rs.)

Size Groups	Total amount borrowed		Extent of Repayment				Extent of Indebtedness			
	Short Term	MediumTerm	Short Term		MediumTerm		Short Term		MediumTerm	
	Amount	Amount	Amount	%	Amount	%	Amount	%	Amount	%
'A'	3,750	...	2,800	64·4	...	...	950	25·6	...	...
'B'	4,200	700	2,800	66·66	140	20	1,400	33·34	560	80
'C'	2,500	700	2,500	100	140	20	...	...	560	80
'D'	3,000	400	3,000	100	80	20	...	...	320	80
Total	13,450	1800	11,100	82·53	360	20	2,350	17·47	1,440	80

The causes of low repayment in 'A' group is the poor economic condition and deficit economy on the one hand and successive failure of Kharif crops in part few years on the other. It may be noted in this connection that borrowings for unproductive loan purposes, specially for consumption, were higher in this group.

In group 'B', the total short-term credit borrowed was Rs.4200, out of which Rs. 2800 were repaid, and thus the percentage of repayment worked to be 66·66%. In the case of medium-term loan the extent of repayment is 20%, which is up to the target of repayment because the taccavi loan was issued for the period of 5 years and only 20% of the loan was expected to be repaid according to the terms of borrowing. Hence the extent of repayment of the medium-term loan is 100%.

In group 'C' the total short-term credit was Rs. 2500. The whole amount of loan was repaid and thus the percentage of repayment comes to be 100% in this group. The total amount of medium-term credit borrowed was Rs. 700/-, out of which Rs. 140, i.e., 20% was repaid according to terms of borrowing. Thus in this group also the extent of repayment of short-term and medium-term was 100%.

In group 'D', the total amount of short-term credit was Rs. 3000, and the whole amount was repaid in time. In this group also the extent of repayment is cent per cent.

On the whole the repayment of short-term credit is 82·53% and the extent of repayment of medium term credit is 20%. Though the repayment of the medium-term credit is 20% which looks insignificant but actually the repayment is 100% because only 20% of repayment was expected to be made in this year.

From the above discussion it is clear that as the size of holding increases the extent of non-repayment decreases. It is due to the relative differences in the economic condition of farmers which is mostly governed by the size of their holdings.

(iv) *Extent of Indebtedness*

It is clear from table 11 that the amount outstanding as debt in group 'A' is Rs. 950 which is 25·6% of the total borrowing. This figure will be more if we take the sources of repayment of total credit, because in this group one member has repaid the loan of co-operative credit by taking a loan from money-lender, and thus the amount outstanding as debt is something different which worked to be 1450, i.e., 38·9% of total borrowing. The cause of outstanding debt in this group is the poor economic condition of farmers, a state of deficit economy.

In group 'B' the amount of outstanding debt was Rs. 1400, which worked out to be 33·34% of the total borrowing. Cause of high outstanding debt in this group is that some of the members have not repaid the loan of co-operative society due to some abnormal situation such as illness, death of cattle and bullocks, etc.

In group 'C' and 'D' outstanding debt was Rs. 560 and Rs. 320 respectively. But as the loans were of medium-term repayment was done according to terms. Hence these amounts are not the indicators of debt in these groups.

The burden of debt on the small farmers is higher than on the big ones. The relationship between the size of holding and the extent of debt comes to —0·8. It confirms the fact. In 1963-64 it was —0·6 as our study shows. It shows that the burden of debt on the small farmers is increasing. In this study we find that the small farmers are indebted to the cooperative, over-financed cooperative members and by some other private money-lenders. There are 10 small farmers i.e., 9% of the total farmers of the village who have given their total land to the big farmers and three private money-lenders who were landless and non-agricultures, but now have become farmers due to this land. These 10 farmers have borrowed money for their debt relief (to repay the credit of cooperative and other private agencies). The burden of debt has increased over them. The increased debt has made them non-agriculturists in stead of agriculturist. Thus one can say that the indebtedness of the farmer is increasing and due to its effect land is shifting from the small farmers to moneyed class. This shift is a danger for the nation. Because land is going in the hands of unexperienced, unskilled and untrained persons who are unable to do farming. They may be a factor for reducing the production. This shift may create a problem for land legislation. At present it invites attention to retain the land in the hands of the farming community. It is also a way for better farming for better production. If it will not be done, the problem of fragmentation of holding, tenancy system and Zamindari system may renew.

(v) *Impact of Indebtedness on Farm Enterprise*

Though the proportion of indebted families is small in this village, those who have incurred debts or continue in a state of indebtedness have indifferent attitude towards the farm enterprise. The impact of debt has a greater bearing on their mind. In the case of indebted farmers, their limit of borrowing is influenced by the size of debt and borrowing for developmental purposes becomes lesser and lesser as the size of debt increases. The impact of chronic poverty and indebtedness have led to loss of incentive for making the utmost use of his land. They do not seem to have any inducement to affect any temporary or permanent improvements on their farms by applying credit. Thus the scope for application of more fertilizers, better seeds and better methods of cultivation becomes limited in such cases.

Besides, debt prevents a free disposal of their agricultural produce. Thus they are deprived of getting better prices for their produce. These farmers are compelled to sell their produce to creditors and thus they have less incentive to produce more. It is indebtedness due to which the farmer is guided and controlled by the creditor.

Suggestions are generally given that the attitude of these sub-marginal farmers towards farming must be changed. But it should be appreciated that the change of attitude of farmers towards credit is only possible if these farmers are brought out from the vicious circle of chronic poverty and indebtedness. A close examination of the analysis presented in previous section will show that in the case of small farmers, the impact of indebtedness is higher. The cases of these farmers require special treatment (separate from the case of normal or better farmers) to bring about a change in their attitude of indifference towards improvement and since this indifference is an outcome of a chronic state of indebtedness, the basic point is to get out of that state.

CREDIT PSYCHOLOGY AND ECONOMIC GROWTH

(i) *Farmers' Goal*

Pattern of utilization of land, labour and capital and the use of fertilizers, reveals the fact that in the case of most of the farmers, 'farming is a way of life'. The nature of cultivation on such farms is mainly of subsistence type, family food being the main objective of cultivation. Farmers have a strong motive to allot as much area as possible to food crops intended for home consumption. This is subsistence orientation of farmers, which necessitates a definite proportion of area under these crops for purpose of food, feed, fodder. Besides, farming as a way of life means that in case of most of the farmers considerations of higher income or profit do not dominate their farming activity. The obvious result appears to be that farmers are ordinarily considered to be too much conservative, or steeped deep into custom and social system.

This is the situation which affects the demand for credit. Farmer cannot be blamed for this situation i.e., slow progress in agricultural production and technology. During the investigation it was found that farmers have no resistance to change, but they have a fear in adopting new practices because of the fact that the future is itself uncertain and they have no clear or reliable anticipations of the results. The change becomes difficult as they have lesser propensity to bear risk and lack of knowledge makes it more difficult. Hence to bring out a change in their attitudes requires a positive and correct approach to their basic problems.

(ii) *Use of Credit as a Developmental Factor*

The present patterns of demand and utilization of credit have shown that most of the farmers are treating credit as a means to carry on agricultural operations on the present level of efficiency, which is certainly much low. There is a vast potential which has remained unutilized due to lack of sufficient funds. Commercialization of agriculture requires the use of more and more capital for creating new resources and a better utilization of production potential, land, labour and livestock. It involves new crops and improved technique of cultivation. It necessitates changes in production technique and changes in the outlook of farmers. For commercialization and modernization of agriculture, it is necessary that the entire outlook of the farmers towards agriculture must be changed. Change in outlook means not only becoming conscious of the deficiencies of present methods and practices but, equally important, it means positive approach for the creation of new values, new desires for improvement, new ways of living and new and improved ways of making a living.

In a sense the two are parts of an inter-related process. To appreciate the deficiencies of the present, the villager must have a mental image of new and adequate finance for translating it in practice.

Agricultural credit has an important role in providing finances necessary for adoption of new technique and promotion of change in outlook of farmers towards farming. Credit can be used for qualitative and quantitative changes in agriculture. For this the demand pattern of credit must be changed, credit for modernisation and commercialization of agriculture and not only for carrying on agricultural activities and making up the gap of deficit economy.

ATTITUDE TOWARDS CREDIT IN THE PAST AND PRESENT

(a) *Attitude Towards Credit in the Past*

In the past, in normal times credit had been distributed for construction work with a view to resist famine. No serious attempt has been made by the government in the field of agricultural finance as such during this period. During the period it was thought that the provision of credit shall minimise the credit need of farmers by improving their economic condition. Hence, all attempts of the government were made to make the farmers credit-worthy. But outlook of farmers towards credit was only a means to tide over the bad times, or credit has been taken for meeting urgent social obligations and consumption, and not for productive purposes. The farmers considered credit as a defaming factor for their social prestige. They thought that credit was a 'sin'. The reason was that there were limited resources of income and high degree of chances of indebtedness due to famine and other natural risks.

(b) *The Current Outlook*

At present the government has taken farm credit as an instrument to enhance agricultural production and commercialisation and modernization of agriculture. Now the loaning of government has changed from the credit-worthy people to credit-worthy use and credit is being given on the basis of cropping pattern and not on Haisyat.

Attitude of people towards credit has been changing. Previously farmers thought credit as a means to tide over the bad time but now they think that credit is necessary for intensive cultivation and for increasing farm production. Now the conception that credit is a 'sin' or a bad indicator for the social prestige is also changing. The farmers think that credit is not 'sin' but its unproductive use which creates indebtedness is 'sin'. Formerly debt was considered as an indicator of dishonour, defame as an anti-factor and a means to damage future life. At present it has become an indicator of fame, honour, highness and good way for the future life and generation. Previously credit was considered as a burden for the next generation. While at present, it seems a boon of relief. At present, it has become a technique for shining in life and raising of living standard. In the past there was a proverb that farmers born in debt, lived in debt and died in debt leaving it as legacy to their children. In these days farmer is born debtless and does or may not die in debt or indebtedness. Now the farmers say "KURZ KE FURZ SE KURZ KE MURZ DUR KARAU—means, by the means of credit, remove the indebtedness and other weaknesses. It means people accept credit as a factor of prestige. Now the credit cuts the debt as the diamond cuts the diamond. This is a significant change.*

From the officer's (who are distributing loans) viewpoint it has become something of a common place to say, "People resist change," but in the present study we have many facts to support that it is the opposite : "People accept change." The viewpoint that people tend to resist rather than accept change is a special idea, i.e., formulated by those who are especially conscious of several types internal and external differences or by those who are engaged and are in hurry in trying to bring about change. Certainly, the fact resistance is more striking than acceptance. The truth is, however, that people everywhere constantly change their ways. The rate of change, comparing one people with another or one aspect with another, shows great differences. But in the present context farmers resist change to understand and think over the process and needs of change to know its consequences. For the satisfactory understanding about the change and for the permanent acceptance of change the resistance seems necessary. Without resistance an experienced wise man cannot accept any type of change. Therefore, one can say that resistance for change means a stage of decision for the acceptance for change. In the process of change the resistance and acceptance both are seen as symptoms of special considerations but not as a constant element and both conditions are complementary to each other. Through the process of change people want partnership, progress and peace.

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* Indian Government is also borrowing from other countries to develop the nation. This borrowed money is spread over the farmers in the form of the liberal credit. When the government is not fearing from her indebtedness, why the farmers should have fear for that debt? This is the feeling which brings changes in the attitude of farmers towards credit. Formerly it was the proverb that death was better than the debt. But now it is said that debt is a way to save the life.

Having in mind the past and present attitudes towards credit one can very easily conclude that farmer's attitude is changing fast with the change of time and the generation of the farmers.

MAIN DIFFICULTIES IN BUILDING UP PROPER ATTITUDE

1. *Risk and Uncertainty*—To adopt credit in raising production and cultivation practices the elements of uncertainty and risk, viz., natural risks and artificial risks, have important psychological effects on farmers. Production process involves many variables which are unknown. These variables inculcate a fear in the minds of farmers because production depends partly on the mercy of nature and partly on men's mastery over nature. The natural risks, viz., frost, flood, pest, diseases, hailstorm, etc., influence farmers' attitudes and make farmers security-minded. The conservative and fatalistic attitudes which have been formed by past experiences, influence the utilizations of credit as a developmental factor because adoption and investment of credit create an additional risk of being indebted. The sense of insecurity creates a degree of doubt in the farmer's mind. It weakens the decision-making process, courage and incentive system of the farmers. Its effect creates trouble against the proper attitude.

2. *Illiteracy*—It is a great obstacle in the adoption of credit as an instrument of development. It is illiteracy by which farmer is unable to understand his rights, duties and responsibilities. Illiteracy has made the farmers conservative, limited and narrow-thinking. Farmer is unable for his decision-making process, unable to raise his confidence in future results, unable to strengthen the incentive system, unable to adopt new technique and improved method of cultivation, and is also unable in identifying and utilising the facilities and facilitating factors only due to perpetual existence of illiteracy. Illiteracy makes the farmer unable to contact the big persons and experts. In the farmer's mind it bears fear, inferiority complex and an idea to live isolated from the elite.

3. *Price instability*—Farmers do not produce just because the country wants more of it but produce because it pays them. Price fluctuation has greater impact

on farmer's mind. It shows unassured market unassured income, unassured due price and lack of incentive to get more and produce more. In this situation the farmer is not sure to get certain minimum price. Therefore, he hesitates to spend more and more credit on fertilizers, on improved seeds and on better implements etc. Unfortunately, however, as experience shows, when government gives the assurance of minimum price, it fails to establish a really efficient machinery for giving effect to this assurance.* This failure creates faithlessness in the minds of farmers for these assurances. The ultimate result is that the uncertainty for them still continues.

4. *Lack of Storage and Warehousing facilities*—High degree of perishability of farm produce and low degree of ability of farmer to preserve the farm produce for future use and future sale demands storage and warehousing facilities. The farmer is experienced and expert in knowing the way how to produce more and at the same time he is unable in knowing for storing and selling his farm produce. This is the reason that he gets undue prices for his produce. The function of storage and warehousing has become an equilibrium point between the production and price factor. Inadequate storing and warehousing facilities compel the farmers to depend upon the private agencies. The private agencies, in this situation, get a chance to create a compelling situation for the farmers by refusing their produce to store in their store. Due to too much perishability of the produce, the farmer is bound to obey the guidance of the storeman. This stage of the produce handling is the stage of price equilization and is also the stage of produce dispersion. In this situation the farmer is unable to decide what should be the suitable price of the produce and where and when it should be sold. He contacts the storeman for his desired help in decision making function. In the decision making process of the farmer, as his decision making power is weak, the private agencies get a chance to enter in the heart and head of the farmers to mislead them or to exploit them. Thus the lack of storing facility for the farm produce is not only the problem against the perishability of the produce but the problem for farmers is their weak decision making power.

5. *Small size of farm and large number of varieties*—It is a common knowledge that the size of the farm of farmers is small. If they want to grow more food crop they must sow at large scale and high yielding varieties. But high yielding and other improved varieties require, high degree of care and manurial as well as other treatments by farmers. Farmers chose high yielding varieties and produce more but get less price from that produce because these varieties give high yield but are low in taste at the level of consumption. Therefore, consumers dislike to purchase them. If farmers grow one high yielding variety

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* The government fails to establish an efficient machinery to assure the minimum price of produce partly due to lack of trained personnel, partly due to use of undue political pressures over the honest workers and partly due to deep-rooted curruption in the working system. The second cause of failure of the government, in this context, is its defective planning and ineffective (coercive) implementation.

at large scale they are bound to fulfil the needs of other food grains either by the sale of this crop or by the barter system as the situation permits. If they grow several improved varieties on their small farm their farms become an experimental ground. Neither they can grow number of crops to fulfil their number of needs, nor can they get incentive prices by their specialized produce. From the farmers' viewpoint specialised farming by the help of credit seems useless when he does not get due price and incentive. In this situation he likes to do diversified farming which solves several needs of consumption and protects him from the several risks. His small size of holding becomes a problem when the farmer wishes to grow greatern number of varieties of one crop and greater number of crops at one farm to take production for the purpose of sale and for own consumption.

THE WAY FOR BUILDING UP PROPER ATTITUDE

For building up proper attitudes for treating credit as a developmental instrument following measures can be suggested :

(*i*) *Crop and Cattle Insurance*—Crop and cattle insurance programme can be devised to make agricultural income more secured. By the way of insurance risks may be minimised in the farming system. Price guarantee should be made by fixing a range for price fluctuation.

(*ii*) *Crop Protection*—Control of insects, pests and diseases requires expert supervision and equipments which are not easily available to Indian farmers. This aspect requires a continuous and positive efforts of extension organization to provide skill and knowledge to the farmers in this regard.

Marketing news and news about the diseases should be given to the farmers through radio and newspapers.

(*iii*) *Adequate and Timely supply of Inputs*—In order to make the agriculturist more certain, or for overcoming production variability and for enhancing agricultural production through intensive cultivation sufficient irrigational facilities, implements supplies, seeds and fertilizers supplies in time should be made. It may be made easy and sure through the cooperatives, block development agencies and other local supplying centres.

(*iv*) *Need for Integrated Approach*—In this context one can say that there should be integration among the agricultural departments from the point of production to the point of produce sale. This integration should be in practice with efficient administration, wise policy formulation and its execution. Secondly, the problem of production, family, illiteracy, backwardness of agriculture etc., are also related problems; and only a coordinated approach can bring success. As it is a common knowledge that credit is a factor for farm production on the one hand but is an indicator of economic weakness of the farmer on the other. It has direct relation with social and economic problems. So an integrated approach seems to be a good solution for that.

Agra University Journal of Research (Letters),
Vol. XVIII, Pt. I, January, 1970.
Pages 35-42

HINDU TRADITION AND SOCIAL LEGISLATION IN INDIA

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In a dynamic and developing society the rules of conduct governing social life have to keep pace with the new forces that are generated as a result of social change. As such, they have to be modified or replaced by new laws. Social legislation is an attempt to bring about an adjustment between the existing laws relating to welfare and the changing needs of the society. The main object of social legislation is to promote welfare of the society and this cannot be possible unless basic values, which underlie the social structure are taken into consideration. This base in our society is provided by the fundamental values, which constitute the core of Hinduism. Hinduism can only be regarded as a way of life rather than as a mode of worship. This paper attempts to analyse the growth of social legislation in India and to indicate how far it has been influenced by Hindu tradition.

The present social legislation regarding marriage and divorce, dowry, succession, and adoption is an outcome of the legislation introduced during the British rule, which was mainly based on the interpretations given to Hindu law by the *Pandits,* and as such it is necessary to analyse at the outset, the concepts underlying the ancient Hindu Law. Hindu law is one of the oldest existing legal systems which governs more than about 230,000,000 people. For three thousand years its outstanding characteristics have been the freedom of juristic discussion and the wealth and variety of custom."[1] The ancient legal system is at several important points intermingled with religion. In the Hindu view of life all conduct rests on a suprasensible basis.[2] This leads to a fusion of religion and morals, which is reflected in the existence of dharma. It is difficult to give a particular meaning of the term dharma. There are variations in the usage of the term in various ancient texts. In the Rig Veda, for example, in one context the term is used in the sense of customs, in another context it is used in the sense of moral laws, and in a third context it is used in the sense of laws or duties in general, etc. To the writers of dharmashastra, dharma meant not a creed or religion, but a mode of life and a code of conduct which regulated a man's work and activities as a member of society and as an individual and was intended to bring about the gradual development of a man and to enable him to reach what was deemed to be the goal of human existence.[3] Thus, dharma is a comprehensive term which meant not only a religious duty or a norm, but also implied rules of conduct in the economic, political and other spheres of man's life and activities.

Hindu law is derived from three sources—the Sruti, meaning literally that which was heard, the Smriti, meaning literally, that which was remembered, and custom. The dharmashastra, meaning literally 'the teacher of law' covers both the Srutis and the Smritis, but it mostly represents the Smritis. It is full of guidance and regulations with regard to legal as well as non-legal matters. It gives elaborate rules for domestic and even religious duties. The background of many of its prescriptions and prohibitions is to be found in the philosophical basis of the Hindu conception of life and its goal.

The literature on Dharmashastra has been put into three different but somewhat overlapping periods. First, the period of the ancient dharmasutras and of the Manusmriti dates from the 6th century B.C. to the beginning of the Christian era. The code of Manu, i.e. the Manusmriti was compiled between about 200 B.C. and 200 A.D.

The second period dates from the first century of the Christian era to about 800 A.D. In this period most of the Smritis were composed in verses. The Smriti of Yajnavalkya was written in about the 4th century A.D., and the code of Narada was written in the 5th or 6th century A.D.

The third period ranges from about the 7th century to 1800 A.D. It is the period of the Commentators and the writers of digests. The Smritis were in disagreement with each other with regard to certain matters. Therefore, Commentaries which are known as Nibandhas were written on the Smritis. As a result, two schools of law developed, viz. the Mitakshara and the Dayabhaga. The Mitakshara is a Commentary on the Yajnavalkya Smriti. It not only explains the verses of Yajnavalkya, but it is also a sort of a digest of the Smriti material. The Mitakshara of Vijnaneshvara has a unique place in the Dharmashastra literature. "It represents the essence of dharmashastra speculation that preceded it for about two thousand years and it became the fountain head from which flowed fresh stream of exegesis and development."[4] The author of the Dayabhaga was Jimutavahana. The Dayabhaga is the digest of all the codes. In matters of inheritance, partition, Stridhana and reunion, it had authority in Bengal, except in those cases where the Mitakshara was applicable. The Mitakshara prevailed in other parts of India, and in some respects also in Bengal.

During the third period several other writers also wrote commentaries which were prevalent in different parts of India. As Kane has observed, most of the later writers lived in the midst of aggressive and violently unsympathetic cultures and rulers and possessed no powerful control government that sympathised with their ideals. Consequently, they were driven more and more to revolve within their own narrow grooves and could not see far in order to regulate society in a free and buoyant spirit.

As regards administration of law, in ancient times, the king himself was governed by the laws of the society. Usually, justice was administered by the king, but the courts functioned only where the king resided. So, in order to facilitate administration of justice in the rural areas, there were the *Sabha*, the *Samiti* and the *Parishad*. The *Sabha* was some sort of a village council or an assembly consisting of learned men who used to administer justice. The *Samiti* was an assembly of warriors (Dharmakosa I, 22). The *Parishads*, according to Baudhayana consisted of about 10 members wherein learning was greatly insisted upon. The striking feature of these Pandit associations was that the Pandits used to survey the social situation from time to time, and if some new changes in law were felt necessary under changed circumstances, they used to convince the people of the advisability and suitability of the changes in law. Thus they guided the society by their opinions. "Smritis like those of Devala, Brihaspati or Katyayana, and later works like the *Mitakshara* and the *Dayabhaga*, which proposed important new changes in the then established old practices, were really due to the activities of such learned bodies (Pandit-Parishads)"[5]. This is how social legislation was brought about, and was made effective by moulding public opinion.

Hindu law continued to develop freely till the establishment of Muslim rule in India. Broadly speaking, the Muslim rulers did not concern themselves with the local administration of justice. They were concerned only with regard to the collection of revenue and the repression of crimes affecting the stability of their rule. The Muslim law was based on Islam and had no application to the Hindus. The Hindus, therefore, had to move within their own circles for their guidance and governance.

During this period, the Pandits ceased to be legislators and the previous laws were stereotyped. The process of stereotyping continued for a long time. Hindu law tended to be crystalised at this period of its history. Practices which had no support in the Shastras came to be considered sacred. These practices continued upto the time of the advent of the British in India. No doubt, interpretations on Hindu law were made during this period, but the commentators who interpreted the original texts had no hand in the actual administration of law. Due to Muslim invasion they were faced with the problem of saving Hindu society from the threat of Islam. Priyanath Sen in his work on Hindu jurisprudence observes: "The commentators had to meet the demands of a progressive time not by the introduction of avowed innovation, but by ingenious interpretation working upon old materials. When the view of a particular writer who by reason of his superior scholarship and sanctity of life, commanded reverence of the people by a particular locality, got a firm hold upon the people and began to mould their lives, and institutions, the chances of those views being easily shaken off diminished from day to day, and at last there came a time when his interpretation might be said to have almost superseded the original authorities on which they were based."[6]

With the coming of the British in India, came new social, political and economic forces in the Indian society. It is in this context that modern social legislation has to be studied.

British penetration in India began during the Muslim period. The British had come to India only as traders, and accepted and worked through the then existing laws and institutions. The foundations of the British rule were laid down when they occupied certain areas, such as Calcutta, Bombay and Madras. The British established High Courts in these towns. The courts were regarded as an extension of the High Court in London. Naturally, English law was applied in these courts, and disputes between Indians were excluded from the jurisdiction of the courts. Later on, Hindu and Muslim law were applied as the personal law of Indian litigants in such matters as inheritance, succession and contracts.

When the personal law came to be applied by the courts, the British judges who were to administer justice, did not have any knowledge of the usages of the land. They did not even understand Sanskrit in which the personal law of the Hindus was written. They, therefore, relied upon the interpretations of Pandits. But after 1868, the texts as interpreted by the pandits were dispensed with and English translations took their place. The Western scholars who translated these works were not acquainted with Hindu traditions, and could not even understand the Hindu life which was described in the Shastras. The Hindu law that determined the decisions of the learned judges was not, therefore, always the law that was in keeping with Hindu traditions, but was the law as it appeared in cold print.[7]

The British judiciary in India considered Vijnaneshvara and Jimutavahana as the expounders of Hindu law. The commentaries were written by Jimutavahana and Vijnaneshvara in about the 11th and the 12th centuries. This meant that the judiciary were applying the law of the 11th and the 12th centuries to 19th century conditions. The result was that the spontaneous growth of our law was suddenly arrested and a degree of rigidity was given to it which it never possessed. Kapadia pointed out two significant drawbacks on the part of the British judiciary in India: "First. for nineteenth century conditions they were accepting the law as it was expounded in the eleventh and the twelfth centuries, ignoring thereby the momentous development of the law in the writings of Nand Pandit, Nilkantha and Balambhatta. And, second, by accepting Vijananeshwara and Jimutavahana as the expounders of the personal law of the Hindus, the natural evolution of Hindu law for centuries was ignored; for, instead of recognizing its essentially dynamic character they accepted it as a stereotyped system based on a particular principle."[8]

Hindu law was applied by the courts as the personal law in all matters connected with succession, inheritance, marriage, religious usage and institutions. Under the decisions of the courts in British India, the Mitakshara was considered authority throughout India except in Bengal where the Dayabhaga was taken as authority. A reference about the two texts is given earlier in this paper.

There was a provision that these may be altered by legislation. But in actual administration the British government adopted a policy of non-interference. "The British administration moved slowly and almost reluctantly in matters which did not effect the stability of the country. It watched carefully whether any new measures might cause offence and give rise in opposition in the country......the policy of the British administration to interfere as little as possible with customs of the population in matters of personal status, family, law and succession, however, well intentioned, acted as a break on progress and retarded a possible natural line of advancement and development of Hindu society.[9] It is obvious, therefore, that during the second half of the nineteenth century no systematic effort was made by the British government to introduce necessary changes in law. It was only due to the pressure of the enlightened Indian opinion that social legislation was brought about with a view to deal with some of the burning social problems.[10] The Sati Regulation of 1829 prohibited the practice of burning alive the Hindu widow along with the corpse of her husband. The Hindu Widows Remarriage Act which was passed in 1856 permitted the Hindu widow to remarry. The former act, being a coercive measure put to an end the practice of Sati, but the latter could not be implemented effectively, since the orthodox Hindus were strongly opposed to it. Social legislation prior to 1937 was thus of a piecemeal type. Since 1938 after Provincial Autonomy was set up, a number of private bills regarding Hindu women's rights of inheritance were moved in the legislature. Faced with these private bills the government thought that instead of bringing about legislation of a piecemeal nature, it would be better to have all the matters of Hindu law examined carefully. With this purpose the government appointed a committee consisting of the late Sir B. N. Rao, a brilliant judge of the High Court of Calcutta, as chairman and three distinguished lawyers as members. The Committee issued a questionnaire to different governments, different courts, lawyers of eminance, Sanskrit scholars and Pandits' Associations and Women's associations. The preliminary report of the Committee was itself based on the questionnaire. The Committee strongly advocated the preparation of a Hindu Code "which will, without laying violent hands on the ancient structure of Hindu law, be a judicious selection and combination of the best elements in the different schools of Hindu law, will satisfy the needs of any progressive society," and "which generally speaking shall be a blend of the finest elements of various schools of Hindu Law; a code, finally, which shall be simple in its language, capable of being translated into the vernaculars and made accessible to all."[11] The task of the Committee was difficult. They had to prepare a draft codification of the existing law and of suggesting and incorporating in the draft necessary changes in view of the changed social and economic circumstances and requirements of the modern society. The final report of the committee and the Hindu Code Bill were submitted to the Government in March,

1947. After Independence the Bill was introduced in the Lok Sabha on 9th April, 1948. But due to the dissolution of the Parliament the Bill had to be dropped. After the first General elections, the Government adopted the policy of splitting the Hindu Code Bill into parts. Consequently, the Hindu Marriage Bill, the Hindu Succession Bill, the Hindu Adoptions and Maintenance Bill and the Hindu Minority and Guardianship Bill which were mainly based on the Hindu Code Bill were passed. The Hindu Marriage Act was passed in 1955, after much controversy. It makes monogamy a rule for men as well as women. It allows divorce and judicial separation to both the parties on certain grounds which are specified in the Act. The Act also raised the age of girls at the time of marriage to 15. The Hindu Succession Act, 1955, attempts to remove inequalities regarding rights of property by giving a right of inheritance to daughters. The Hindu adoptions and Maintenance Act, 1955, provides for the adoption of the daughter, a right which was denied to girls on certain religious grounds. Under the Act, a wife has a claim of maintenance after judicial separation. The Act also provides for the maintenance of the widowed daughter-in-law, of children and also aged parents and other dependents in the house. The Hindu Minority and Guardianship Act, 1956, places the mother next to the father in the order of preference, as the guardian of her minor children. The Dowry Prohibition Act, 1960, prohibits giving or receiving of dowry in any form as a consideration for marriage.

The passage of the above acts reveals that recognition was given to the fact that all matters of Hindu law were closely connected with each other and hence could not be treated separately.

A close review of the debates on Hindu Code Bill, since the time when it was first introduced in the legislative Assembly in 1943, reveals that various interpretations were presented during the discussions on the Bill. As regards Women's rights to property the bill on Intestate Succession was opposed in 1943 on the basis of an interpretation of a text in the Vedas that women were not considered to have a right to use sacred books, nor to take inheritance. In reply to this argument it was stated: "The text in the Veda really refers to the ritual of the *soma* offerings and declares that women are not entitled to participate in such offering. Baudhayana applies the text to inheritance." It was further stated: "The saying which teaches that women cannot own property refers to property acquired for purposes of sacrifice."[12] Justice Muthuswami Aiyar, a jndge of the Madras High Court, in a decision dated 1885, stated "the Vedic text is no bar to the Succession under Mitakshara Law except as to property obtained expressly for the purpose of sacrifices." Sir Goorodas Banerji has remarked: "nowhere were property rights of women recognized as early as in India, and in very few ancient systems of law have these rights been so largely conceded as in our own."[13] As regards adoption Manu did not recognize adoption of daughter, but certain ancient texts witness instances of the adoption of daughters by king.[14] The adoption of daughters is recognized in two texts, Dattaka Meemansa and Samskara Kausturbha. The introduction of the element of divorce is also nothing new in the Hindu law of marriage. When the Hindu Marriage Bill was introduced it was severely criticised and condemned on the ground that Hindu marriage, being a sacrament was indissoluble, and that the Parliament had no right to provide for its dissolution. It was also thought that the introduction of divorce in Hindu law of marriage was against the spirit of Hindu culture. A careful examination of the earlier Dharmashastra literature reveals that divorce was permitted under certain well defined circumstances. Manu in his Smriti has laid down that if a wife leaves a husband who is insane or suffering from an incurable or contagious disease, she should not be blamed (Manu IX, 79). He permits such a wife to remarry on the condition that her previous marriage was not consummated. (IX, 175-6). The Dharmasutra writers (400 B.C. to 100 A.D.) have laid down that a Brahman woman should wait for her husband gone out on a long journey for five years. Kautilya says that she should wait for ten months only (III 4). If the husband did not return within that time and she was unwilling or unable to join him, she should regard him as dead and unite herself with another member of the same family or gotra.[15] Parashara has permitted the wife to remarry if the husband is impotent and has become a religious hermit or is boycotted. Thus there is enough historical evidence to indicate that adoption of daughter, divorce, succession of women to property were not unfamiliar to Hindu law. The confusion arose perhaps due to the interpretation of the law of a particular period without an attempt to understand the social context in which it was written.

The above data indicate that several modifications in Hindu law were made from time to time to meet the needs of the dynamic society. Manu and other Smriti writers had declared that if any rules framed by them were found to be not conducive to the welfare of the society or were against the spirit of the age, they should be given up or modified without hesitation. Thus dynamism and flexibility have been the main characteristics of Hindu law. In this sense, the beginning of social legislation may be traced to the ancient period. But if we compare it with modern social legislation, the difference is to be found with regard to the law making and law enforcing agencies. Today, they are controlled by the State, whereas in the past this function was entrusted to the sages and philosophers who laid down rules of conduct in every phase of human life and activity. Many of these rules govern Hindu social life even to this day. It is also evident from the above analysis that ancient Hindu law provides the main base for social legislation, today. However, the religious aspect has been receded in the background, and it has been replaced by the secular one.

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Agra University Journal of Research (Letters),
Vol. XVIII, Pt. I, January, 1970.
Pages 43-48

THE BAHURIA HAUT FOR MARRIAGE

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OBJECT

An attempt is made to explore the procedure, the methods and the trends of marriages in the Karcoo and Gaund tribes.

CONCEPT, COVERAGE, LOCATION AND DESIGN

In Khandesh, popularly called the East Nemar of Madhya Pradesh, especially in the tribal communities of Karcoo and Gaund there is a seasonal fair—The Bahuria Haut—which is held in early March or April, every year. This is a fair held with a definite (and to us rather startling) purpose in view the yearly selection of life partners for the unmarried girls and boys of the Karcoo and Gaund tribes. During this Haut security arrangements are made by the local police (they help to keep the atmosphere calm) and the local self-government.

This study covers the practices of the Karcoo and Gaund tribes of the 'Boderly' and 'Khalwa' villages of the Khandwa district M.P. and is a localised study. Hence its findings may not be generalised. The author lived two years in these villages and joined in the festivities, marriages and other recreational activities of the selected tribes. Information was collected by participant observation; the reference period is January, 1968 to June, 1969.

THE PROCEDURE OF MARRIAGE

A marriage in the Bahuria Haut needs a good deal of preparation on the part of the bride and bridegroom. According to the tribal leaders (male and female) and the 'Jagga'—the Pundit of the tirbals—there are various stages in this preparation for marriage.

First Stage—At this stage boys and girls learn how to chose a good life-partner with discrimination. In fact the way and ease with which a boy or girl choses his (or her) partner is the only criteria of judging if he is from a good family? So at this stage a careful and intricate training is provided in each family so that their children can chose a life-partner with professional aplomb (how to agree or disagree as the case may be), how to draw out a person, and how to develop a winning manner are just a few features of this eleborate training. After this ten items (corresponding to the ten Gods of the Ten Corners) are kept and marked. If a boy choses a red flower and a girl also choses a red one, if a girl choses a green piece of cloth and the boy too choses it, if a boy likes horse-riding and the girl does too, and if ten such points of similarity are found between a male and female, then the selection of a life-partner is half-completed. After the 10th point of similarity the boy and the girl smile at each other—a priceless and still unsurpassed indicator of internal liking (as was the case of the Coyly smiling newly-weds that the author studied). After a few moments both shake hands to show their acceptance of each other. This is the stage they get to know each other.

Second Stage—In this stage both the parties (male and female) give some money to each other—this is the way in which two unknown families contact each other for marital relations. The money is usually given to the boy by the leader of the girl's side and vice versa. This money enables the boy and the girl to move about and enjoy themselves freely in the Bahuria Haut. The prospective couple get time to go out together to enjoy themselves, to talk, to make decisions. Then they return to where both the groups (male and female) are waiting anxiously for their decision that fateful 'Yes' or 'No'. This is the signal for the marriage preparations to begin. Thus an individual decision is here, the basis of marriage.

Third Stage—At this stage the girl's side asks for money from the boy's side for the marriage (this is just the reverse of the procedure of non-tribal marriages for they consider girls tribal and of secondary importance "BETIVALA HAMESHA CHHOTA HOTA HAI" is the general chant). Why? one wonders, this undue emphasis on the boy? In this respect the 'primitive' tribals are far more logical. If a girl is fair, has a good figure and a good education more than Rs. 1,000 are demanded and five chances for the selection of a life-partner are given to her. If a girl has a good figure and education but is dark, only Rs. 600/- are demanded and she gets only 3 chances for choosing a life-partner. The boy's party is given a definite period of time to collect the money but if it fails to do so the girl's party declares the marriage invalid. If the money is given, then the marriage is performed according to Hindu Rites. Some of the Karcoo's and Gaund's have accepted christianity and though their marriages are consumated in church, they too have to join the Bahuria Haut, but some of the more urbanised Tribal families do not join in the Haut now.

Fourth Stage—In this stage the marriage is finally performed at the door of the girl's house, and the night echoes with the chant of 'Mantra's and is filled with the rich smell of 'ghee' as the Jagga performs the ceremony in the secrificial fire. Then the girl and the boy are garlanded. During the garlanding the boy and the girl exchange a kiss which seals the agreement. They are now free to be on their own—they are married.

This procedure far from being primitive is more reasonable than many a non-tribal practice, for in its individual freedom, individual decisions, and personal desires are the main-stay. In the first stage through the five or six hours they have to themselves, the boy and girl get to know each other. In the second stage the choice is made and the preparation for the marriage begins. This procedure is traditional and shows that sometimes the 'backwards' are more 'forward' than the forwards.

KINDS OF MARRIAGES

There were various kinds of marriages prevalent in these tribes. Some of them are as under:—

1. *The Parent settled marriage*—Parents prepare their children for the selection of a life-partner in the Bahuria Haut. After the selection and acceptance of the boy and the girl, the parents decide the time and the place of the marriage. They also make the decisions about arrangements and ceremonial activities. This is a well-known and popular type of marriage.

2. *Manmani Sadi* (*Mixed marriages*)—Out of the 40 families covered by the author at least four had this sort of marriage. Some literate Karcoo's and Gaund's who lived in closer contact with the christians and Refugees often married outside their tribes. As they very logically pointed out "JANI APNE MANMANI DHURAU TAU SADI MANMANI HAI"—search your wife according to your will and marry so as to mix with others.

The author found a literate Karcoo married to a christian Gaund just returned from Germany. He then changed his religion and socio-economic class line. This is the second marriage of this type this year. This means that the tendency of mixed marriages is increasing. Though it was generally considered 'peculiar' and out of the way, however, nobody made any objection to it.

3. *Dabav-Ki-Sadi* (*Forced marriages*)—"Dabav Dabata Hai Sadi Bade" (The force of special circumstances compels marriages) is a common local saying. Very often as the result of having relations before marriage, a girl gets pregnant. The only way out in this situation—to save face—is marriage even if it is against the bridegrooms will.

Thus an educated Karcoo boy was living with an educated gaund girl. They lived and worked together without the sanction of matrimony. When pregnancy resulted they married in the Bahuria Haut with caste's sanction. In another case a handsome gaund boy of a reputed family, and a beautiful girl, the daughter of a Karcoo M.L.A. were not allowed to marry because of the objection of their parents. The boy who used to teach the girl, had intercourse with her and the resultant pregnancy forced the parents to allow them to get married.

4. *Bata-Ki-Sadi* (*Promised marriages*)—In such cases marriages are performed on the basis of prior promises—either the promises of parents or the children. Ten such marriages occured in the area. They believe that "Bata-Ki-Sadi Sabse Pacci Hote Hai, Are Pare Hove" Marriages on verbal contracts are the best because they have the highest degree of faith for success. Thus a gaund family married their daughter to a Karcoo boy because they had promised to marry their first issue. Thus friends often promise to marry their children, and sometimes the boy and the girl themselves marry because of promises they have made in childhood. This system of marriage is not very popular as quite frequently the bride and bridegroom have no say in the matter.

These types of marriages, viz., forced, promised and mixed are the typical ones of the Karcoo and gaund tribes and though these tribes are backward and conservative, yet their methods of marriages are more liberal and advanced than in many a "forward circle" in India. But these types of marriages are fast catching on with the more developed people. Thus the author discovered 3 cases of "forced marriages", 4 cases of "promised marriages", and 10 cases of "mixed marriages" in some of the best families of non-tribals. This system of marriage if it becomes popular in the more educated families will do a lot to liberalise some of the rigid connections of Indian marriages.

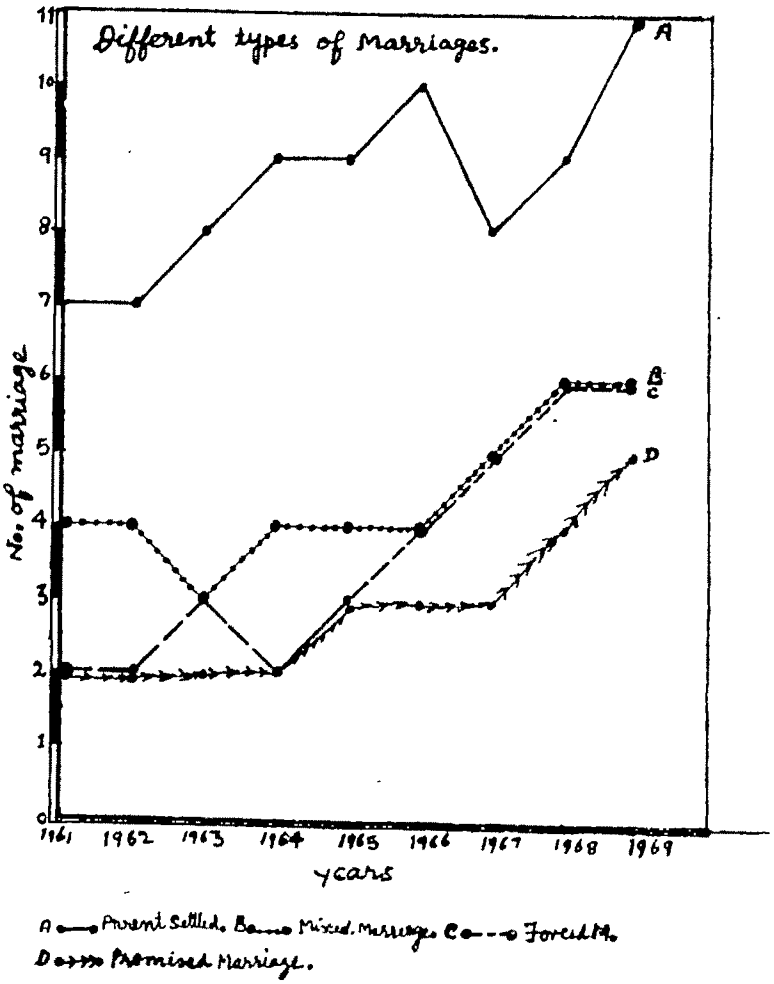
TRENDS OF MARRIAGES

In the study of the trends of marriages, viz; parent-settled, mixed marriages, "forced" marriages and promised marriages, information was collected from the Jagga—a caste leader who worked as a Pandit in marriages and kept records of it. On the basis of the recorded data of the caste leader of the studied tribe the following results were found:

Trend of change in different kinds of marriages 1962-69

Kinds of marriage	1961	1962	1963	1964	1965	1966	1967	1968	1969
A. Parent settled marriage	7	7	8	9	9	10	8	9	11
B. Mixed marriage	4	4	3	4	4	4	5	6	6
C. Forced marriage	2	2	3	2	3	4	5	6	7
D. Promised marriage	2	2	2	2	3	3	3	4	5
Total marriages	15	15	16	17	19	21	21	25	29

The above table shows that parent settled marriages are not increasing so rapidly as the other types of marriages. There is a continuous increase in forced marriages and mixed marriages. The reason is that Khatri Punjabies have settled in the studied tribal villages of Boderly and Khalwa (under the rehabilitation scheme of the Madhya Pradesh Government) who do the job of money lending. According to the statements, expressions and gestures of the studied tribal women these moneylenders indulge in sexual activities with attractive tribal girls and have young tribal friends for the situation of forced marriages. This type of marriage is increasing more and more due to the contact of non-tribals with the tribals. The non tribals establish their social relations by economic relationships and through socio-economic relationships. They create sexual relationships which result in marriage. The mixed marriages and promised marriages are also increasing partly due to the increase of tribals youth education and partly due to the effect of modernization. Or this is the result of the change in the attitude of tribals from their narrow attitude to a broad attitude. The trend shows that parent settled marriages are declining due to the existence of these new types of marriages.



CONCLUSION

The procedure of tribal marriage shows that tribal marriage system is also changing by the effect of socialization in which christian and Hindu religious people are playing good role. The education system is also changing the tribal marriage system and tribal life. The kind of tribal marriage shows a significant change. On the basis of "mixed marriage" system in the tribals one can say that tribal's traditional marriage system is becoming loose. The increasing trend in every kind of marriage of studied tribes, shows a direction of change in the tendency of youth of the tribals. This seems good for their modernization. This paper invites attention of the Researchers for the study of tribal marriage system at great length.

ACKNOWLEDGEMENTS

Thanks are due to Mr. C. R. Dass for his valuable guidance and to Mr. J. N. Singh for the supply of needful hints in the preparation of this article.

Agra University Journal of Research (Letters),
Vol. XVIII, Pt. I, January, 1970.
Pages 49-66

RURAL ELECTRIFICATION

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Electricity is an immensely potential instrument for economic growth and social progress. In our rural areas, in agriculture, which is still a gamble in the monsoon, it can bring about far reaching changes in methods of lift irrigation and farm practices, and thereby increase agricultural productivity and production. It can lead to far more efficient processing of farm produce, to the establishment of small scale and cottage industries and to the provision of amenities of life. In short, rural electrification can be immensely helpful in creating conditions fo growth for industries and commerce and thereby generating new employment and income opportunities, in providing amenities of life generally associated with modern urban living; and thus reducing the existing and the growing gap between the lives of our rural and urban communities, and in creating a forward-looking and development oriented outlook in the poor, conservative, simple and unsophisticated rural communities. It is because of these direct and indirect potentialities of electricity that the demand for rural electrification has been gradually increasing amounting to a pressure. However, it is worthwhile to note that though the potentialities of electrification for rural development in general and for modernization of agriculture in particular are undeniable, they have to be understood and evaluated in the context of competing claims on the limited supply. Therefore, the considerations of cost, the potential demand for different categories of use and the time horizen of its development assume special significance.

PRESENT POSITION OF POWER DEVELOPMENT

For a discussion on the programme of rural electrification it is necessary to have, as a background, a general understanding of the development and the problems relating to electricity in the country. In this regard more relevant facts are: installed capacity, energy generation, transmission, the pattern of demand (utilization) and the relative shares of the public and the private sectors in the output of electricity. The present position of these in our country is as presented in table 1.

TABLE 1*

Growth of Electricity—Installation, Generation, Transmission and the Pattern of Consumption

	1960–61	1965–66	1968–69 (estimated)
1. Installed generating capacity (at the end of the yr.) (mill. kw.)			
Hydle	1·92	4·10	6·03
Thermal	3·40	5·65	8·17
Diesel	0·33	·42	·30
Total	5·65	10 17	14·50
2. Energy Generated (during the yr.) (mill. kwh.) Public Utilities	16,937	32,990	45,158
Hydle	7,837	15,225	20,800
Thermal	8,732	17,441	24,114
Diesel	368	324	244
Power units in industrial establishments	3,186	3,835	4,580
Total	20,123	36,825	49,738
3. Progress of Transmission Schemes (circuit kms.)			
Above 500 volts–upto 11/15 kv.	102,027	185,969	291,000
11/15—66/78 kv.	41,960	76,358	194,200
110 kv. and above	13,910	28,491	
Total	157,888	290,818	485,200
4. Electricity Consumed (mill. kwh.)			
Industrial power	12,388	22,410	29,755
Domestic light and small power	1,492	2,355	3,255
Irrigation	833	1,892	2,670
Commercial light and small power	848	1,650	2,176
Traction	454	1,154	1,668
Water Works and Sewage Pumping	436	625	844
Public Lighting	193	280	402
Total	16,644	30,366	40,770

* Source: Fourth Five Year Plan Draft, 1969–74.

Of the total installed capacity of 14·5 mill. kw. 56·4% is in thermal plants, 41·6% in hydle plants and 2% in diesel plants. Of the total 49,738 mill. kwh of the generated energy about 90% is by public utilities and only 10% by the power units in industrial establishments. The pattern of utilization (i.e., electricity consumed) works out to be: industry 72·9%, domestic light and small power 8%, irrigation 6·6%, commercial light and small power 5·3%, traction 4·1%, water works and sewage pumping 2·1% and public lighting 1%.

In our economy electric power has been one of the fastest growing sectors, as we find that since 1950 to 1968-69 the installed capacity has increased about 6 times (from 2·3 to 14·5 mill. kw) and the energy generated has increased during the same period by about 7½ times (from 6575 to 49,837 mill. kwh). The average annual growth rate has been 35% in the former and 41% in the latter case. The growth has been larger in the case of the State owned public utilities than in the self-generating industrial establishments and the company owned utilities[1]. The role of the private sector, therefore, has considerably decreased. Relatively high growth in the case of the State owned public utilities is partly accounted for by the transfer of ownership of company owned public utilities to the State Electricity Boards.

During the Second and the Third Plan periods several schemes of power generation fell behind schedule. The target of installed capacity for 1960-61 was 6·9 mill. kw, but the actual capacity commissioned was only 5·65 mill. kw (thermal 3·73 and hydle 1·92 mill. kw). It resulted into power cuts and staggering of load in some regions. For the Third Plan the target set was 12·69 mill kw of installed capacity, but the actual capacity commissioned was 10·17 mill. kw (thermal 6·88 and hydle 4·09 mill. kw). The implementation of the projects was delayed by the outbreak of hostilities in 1962 and 1965 and by some other factors, and transmission and distribution were not commensurate with the increase in generating capacity. Therefore, at the end of the Third Plan the power supply was unsatisfactory, as was reported by the Central Water and Power Commission. But during the three annual plans priority was again given to the completing of those projects which were in the advanced stages of construction; and between 1966 and 1969 about 4·33 mill. kw of generating capacity was added, which was nearly equal to the total added during the Third Plan period; and transmission was also improved. This appreciable increase along with the slower rate of demand made the power position at the beginning of the Fourth Plan quite satisfactory on the whole except for marginal shortages in some areas. Arrangements were made to transmit surplus energy from adjoining States to the deficit areas. Interconnection between State grid systems, enabling inter-State transfer of power[1], has been a very significant development during the Third Plan; and during the three annual plans construction of inter-State lines was given priority. The Third Plan envisaged that all power stations should be inter-connected to form State, zonal and super grids so that the generation capacities are pooled and used to the best advantage of the region. And for the formulation of grids the country has been divided into five regions[2] each with a Regional Electricity Board.

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[1] In the discussion on rural electrification this point is very significant because the programme of rural electrification is in the public sector and the scope for its development is expected to depend on the position of the State sector in electric supply.

The most outstanding facts relating to the position of power in our country at present are: first, the sources of electric power are large and varied[3]. Secondly, the per capita generation of electricity is 57·8 kwh (about 60) in the country as a whole, varying from about 5 kwh in Assam to about 116 kwh in Punjab. It is relatively more in Punjab, Maharashtra, Gujrat, Tamil Nadu, West Bengal and Mysore, and relatively much less in the rest of the country. The inter-State disparity in the availability of energy is very striking. The per capita consumption of electricity was 38 kwh at the end of 1960-61, it increased to 61·4 kwh by the end of the Third Plan and was 77·3 kwh at the end of 1968-69. Hence the level of generation and consumption of electricity per capita is very low according to the standards of developed countries. Besides, there is extreme disparity amongst the different States. Thirdly, the operational efficiency is low; and the transmission system needs appreciable strengthening and improvement. Fourthly, the generation of low cost power (thermal or hydle) is as important as adequate generation. Fifthly, though there has been a significant increase in power consumption by agriculture during the last five years industry continues to be the largest (72·9%) consumer. And sixthly, the percentage of electricity consumed to the generated is about 82%. This fact is specially relevant for the programme of rural electrification because the major part of the load is for irrigation pumping which is seasonal in character.

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[1] The Rihand power system in U.P. was connected with Bihar-DVC-West Bengal grid. The Mysore grid was connected with Tamil Nadu, Andhra Pradesh and Kerala grids. The surplus from the former, in both the cases, was transmitted to the latter.

[2] The regions are:

1. Northern:	Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Delhi, U.P., Rajasthan and Chandigarh.
2. Western:	Gujrat, Maharashtra, Goa, and M.P.
3. Southern:	A.P., Tamil Nadu, Mysore, Kerala and Pondecheri·
4. Eastern:	West Bengal, Orissa, Bihar and DVC.
5. North-Eastern:	Assam, Manipur, Tripura, NEFA and Nagaland.

[3] They are coal, oil, natural gas, atomic fuel and water. Low grade coal is available in plenty. Deposits of thorium useful as nuclear fuel occur in large quantities. Only one-seventh of the potential water resources available have been harnessed so far. Lignite, natural gas and refinery gas are being utilized for power generation where they are available. Exploration of oil continues and the chances of fresh resources seem bright. The Atomic Energy Commission is establishing a research and a prototype breeder reactor for providing thorium as an economic fissible material for power generation.

The outlay on power and the estimated benefits envisaged in the Fourth Five Year Plan are presented in table 2.

TABLE 2

Fourth Plan Outlay and Benefits from Power

	Outlay (Rs. crores)					Additional benefits during 4th Plan (mill. kw.)	Total installed capacity at the end of 4th Plan (mill. kw.)
	Generation Schemes	Transmission and Distribution	Rural Electrification	Investigation and Misc. items	Total		
States	841·44	586·80	312·67	3·41	1,744·32	6·00	17·6
Union Territories	21·65	43·94	5·40	3·48	74·47	0·2	1·5
Central and centrally sponsored plans	198·00	14·00	45·00	9·00	266·00	1·6	3·2
Total	1,061·09	644·74	363·07	15·89	2,084·79	7·8	21·3
Self-generating industrial establishments						·1	1·4
Retirement of old capacity						·4	·7
Net at the end of the Fourth Plan						7·5	22·0

(Source: Compiled from Fourth Five-Year Plan Draft, 1969-74, pp. 216-7.)

Of the total outlay of Rs. 2084·79 crores, Rs. 1061·09 crores is on generation schemes, Rs. 644·74 crores on transmission, Rs. 363·07 crores on rural electrification, and Rs. 15·89 crores on investigation and miscellaneous items. Again, of the total outlay Rs. 1744·32 crores will be on State schemes, Rs. 74·47 crores on schemes of Union Territories, and Rs. 266·00 crores (Rs. 252+14 crores) on Central and centrally sponsored schemes. The additional installed power is expected to be 7·5 mill. kw, of which 6·0 mill. kw will be by State schemes, 0·2 mill. kw by schemes of the Union Territories, 1·6 mill. kw by Central schemes, 0·1 mill. kw by self-generating industrial establishments; and 0·4 mill. kw old obsolete capacity will be retired. Thus at the end of the Fourth Five Year Plan the total installed capacity will be 22 mill. kw, of which 9·30 will be by hydle stations, 11·72 by thermal stations and 0·98 by nuclear stations. Again, of the total 17·6 mill. kw will be by State schemes, 1·5 mill. kw by schemes of Union Territories, 3·2 mill. kw by central plans, 1·4 mill. kw by self-generating industrial establishments; and 0·7 mill. kw old obsolete capacity will be retired. This presents a quite hopeful feature for the future development.

PROGRESS AND PRESENT POSITION OF RURAL ELECTRIFICATION

Rural electrification in India is a rather recent phenomenon. In the First Five-Year Plan the programme was confined to a few States only—Mysore Maharashtra and Kerala. However, in the subsequent Plans a quite extensive programme was followed in all States though not on the same scale. Really speaking it was during the Third Plan that considerable importance was attached to rural electrification as a means for developing rural economy specially for building up an efficient small scale industries sector in villages and small towns. The provision for rural electrification in the different plans has been progressively increasing, though the percentage to total power outlay has not increased. It has been as shown below:

TABLE 3

	First Plan	Second Plan	Third Plan	Fourth Plan
1. Provision for public sector (Rs. crores)	260·00	427·00	1,039.00	2,085·00
2. Provision for Rural Electrification (Transmission and Distribution) (Rs. crores)	27·00	75·00	105·00	363·00
3. % of item 3 to item 2.	10·5	17·6	10·1	17·4

(Source: Fourth Five-Year Plan Draft, 1969–74.)

The progress of rural electrification can be seen from the number of villages electrified and the number of tube-wells and pump sets energized. Until the start of the Third Plan our rural electrification programme was conceived mainly for electrifying villages for lighting purposes. Since 1966-67 the main focus of rural electrification in our country is on the provision of electricity for energizing pump sets and operating tube-wells for irrigation purposes.[5] The position regarding the electrified villages is as shown in table 4.

In terms of the proportion of villages electrified, on the whole, the process has been rather slow, and is still very slow, since in the country as a whole only 1·3% of the villages were electrified upto the end of the First Plan, 4·3% upto the end of the Second Plan, 7·7% upto the end of the Third Plan and 12·4% till March 1968; the total number upto March 1969 was about 69 thousand. Except in Kerala and Tamil Nadu, where the percentage of electrified villages to the total number of villages is 71·1 and 66·2, it is quite low in the whole of the country, being comparatively higher in Madhya Pradesh, Punjab, Haryana,

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[5] The decline of the percentage during the Third Plan is more apparent than real because the Third Plan provision for rural electrification does not include the outlay required for providing the necessary generating capacity to meet the rural load. This outlay has been included in the provision for 'generation' in the Third Plan.

Mysore and Maharashtra. On the other extreme are Assam ·5%, Orissa 1·6%, Nagaland 1·7%, West Bengal 3·8%, Rajasthan 5·4% and Bihar 8·5%.[6]

A comparision of electrified villages by population-size shows that a large number of bigger villages (i.e., in the higher population groups) have been electrified as compared with villages in the lower population groups; and the percentage gradually increases with the size. Besides, the States which have

TABLE 4

Progress of Rural Electrification. Number and percentage of villages electrified to total villages by size. (*March* 68)

States	Total No. of Villages	No. of electrified Villages March 68.	% of col. 3 to col. 2	Population Groups				
				up to 499	500–999	1,000–1,999	2,000–4,999	5,000–9,999
Andhra Pradesh	27,084	4,595	17·00	2·73	12·60	23·09	42·93	73·80
Assam	25,702	134	·5	·10	·40	1·52	8·97	16·67
Bihar	67,665	5,773	8·5	2·79	8·69	15·32	25·01	29·02
Gujrat	18,584	2,594	14·0	2·36	6·27	22·18	63·60	95·04
Haryana	6,669	1,286	19·3	NA	NA	NA	NA	NA
J. and Kashmir	6,559	706	10·8	5·01	15·15	18·94	92·98	60·48
Kerala	1,573	1,119	71·1	NA	NA	NA	NA	NA
Madhya Pradesh	4,545	1,524	33·5	·76	2·04	7·74	40·79	50·00
Madras	14,124	9,354	66·2	30·25	47·64	53·47	62·96	84·19
Maharashtra	35,851	6,855	19·1	9·09	14·85	26·23	48·62	75·08
Mysore	26,377	5,622	21·3	11·22	20·85	30·35	42·95	61·05
Nagaland	814	14	1·7	NA	NA	NA	NA	NA
Orissa	46,466	759	1·6	·38	1·50	8·36	36·06	68·75
Punjab	11,947	3,765	31·5	NA	NA	NA	NA	NA
Rajasthan	32,241	1,757	5·4	2·61	5·95	13·08	27·42	76·60
Uttar Pradesh	1,12,624	11,758	10·4	8·09	11·53	17·58	45·32	81·17
West Bengal	38,454	1,453	3·8	·90	3·90	7·08	16·23	36·88

Sources: Compiled from the Report of the Working Group on Power for the Fourth Plan and Public Electricity Supply : All India Statistics 1966–67, Ministry of Irrigation and Power, 1968.)

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[6] In a meeting of the National Development Council in Sept. 1965 it was decided to give high priority to agricultural electrification with a view to enhancing agricultural production. Hence the plans of the State Electricity Boards were oriented towards electrification of wells rather than electrifying the entire villages for all purposes, from1966–67 onwards.

recorded relatively higher proportion of electrified villages also show generally larger size of villages (or higher population per village). The coverage at the household level, as shown by the Report of the Programme Evaluation Organization, is that in the electrified villages 13% households used electricity for domestic purposes, 4% for commercial, 20% for agricultural and 1% for industrial uses. Only 19% non-labour households had electric connections. In 27% of the villages electricity had reached less than 51% of the non-labour households. On the whole, the coverage at the household level was 25% or more only in 17% of the electrified villages. Of the total users of electricity in villages 35·6% are traders and shopkeepers, 17·8% cultivators, 14·6% artisans, and 15·7% are other industries and others[7].

The progress of agricultural electrification, however, seems to be very much in terms of the proportionate expansion, but in terms of the absolute number and in relation to the vast scope and requirements, it is not at all encouraging yet. The present position and the progress are as shown below:

TABLE 5

	Electric pump sets (No.)	Private Tube-wells including filter pumps (No.)	State Tube-wells (No.)
Pre-Plan	18,698	20,520	2,507
At the end of First Plan	50,097	29,716	6,653
At the end of Second Plan	1,91,766	49,097	9,786
At the end of Third Plan	5,14,231	1,13,216	12,286
Total upto 1969	10,20,921	2,70,545	15,745

(Source: Report of the Working Group for Formulation of the Fourth Five-Year Plan Proposals on Minor Irrigation and Rural Electrification.)

Apart from the number of tube-wells and pump sets energised it is also important to see the types of cultivators who have pump sets, by the size of their holdings. A study of the Programme Evaluation Organization showed that "electric pump sets, as can be expected, had been installed relatively more by large farmers; 57·7% of the electric pump set owners had holdings of more than 10 acres and 28% had holdings between 5 and 10 acres. Only 3·8% of them had holdings below 2·5 acres, and this figure includes 0·6% for who had no land at all."

The main reasons for the slow progress of rural electrification are: the uneconomic nature resulting from the wide scatter of villages, poor load and the seasonal nature of the power demand.[8] The delay in establishing Electricity Boards in many States has also been responsible for the slow progress on the whole. Coordination of the rural electrification programme and its integration with the district development plan through the forum of the District Council, or a similar body, has yet to be achieved in most of the States. It is only in a few States (Tamil Nadu, Kerala, Mysore and Andhra Pradesh) that specific priority for electrification schemes has been given over urban schemes.

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[7] Report on Evaluation of the Rural Electrification Programme, Programme Evaluation Organization, Planning Commission, Govt. of India, 1965.

The public sector outlay for rural electrification and the targets for energization of additional pump sets during the Fourth Five-Year Plan are presented in table 6. The total public sector outlay is Rs. 363 crores: Centre Rs. 45 crores, States Rs. 313 crores and Union Territories Rs. 5 crores. The provision for rural electrification is mainly intended for energizing irrigation pump sets, and the target for the Fourth Plan period is: States 7,37,850, Union Territories 4,010, and for the programme of the Rural Electrification Corporation[9] 5,00,000; thus making a total of 23,10,537 by the end of the Fourth Plan. Within the proposed investment States may also electrify localities and supply power for industrial and domestic purposes. There has recently been an expansion by the Centre from Rs. 55 to 150 crores in the public sector outlay. Consequently the targets may be pushed up further.

COST OF ELECTRIFYING A VILLAGE

From a pure financial angle rural electrification is said to be relatively uneconomic because of the wide scatter of villages, small load and large seasonal fluctuations in consumption. This raises the costs. On the other hand it is admitted that low rates of electricity are desirable in rural areas as an incentive for promoting agricultural and industrial development, better dispersal of industries and for reducing the gap in terms of amenities between rural and urban life. This poses a serious situation.

The electricity supply industry is characterised by high degree of capitalization. On an average, the ratio of marginal capital to marginal revenue is higher for rural extension than for urban extension. The cost of electrifying

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[8] In order to overcome these difficulties the Planning Commission made three suggestions to the States: (1) reservation of certain quota of power for rural areas, (2) constitution of a small Advisory Committee at the district level for the purpose of drawing up a district programme of rural electrification and integrating it with the overall power programme of the State, and (3) exploring the possibilities of setting up small hydro power stations in some areas. The first suggestion was not considered advisable by most of the States for various reasons.

[9] A Rural Electrification Corporation, with an outlay of Rs. 45 crores, is proposed to be set up in the public sector for financing selected programmes in States. This Corporation is expected to attract additional funds estimated over Rs. 105 crores, and to finance the energization of additional 5 lakhs pump sets. Recently the Corporation has been directed to wave the condition of economic viability for a period of upto 5 years. in respect of programmes for the backward areas.

TABLE 6

Outlay for rural electrification and targets for energization of additional pump sets in the Fourth Five-Year Plan in different States

	Pump sets energized by electricity. (No.)			Fourth Plan outlay
	upto 1968–69	During 4th Plan	Total by end of 4th Plan	(Rs. crores)
Andhra Pradesh	119,659	37,000	1,56,659	15·00
Assam	229	10,000	10,229	6·00
Bihar	52,049	1,00,000	1,52,049	40·00
Gujrat	49,661	27,500	77,161	11·00
Haryana	42,589	17,500	60,089	7·00
Jammu & Kashmir	238	1,700	1,938	1·00
Kerala	13,606	11,250	24,856	4·50
Madhya Pradesh	27,309	33,000	60,309	20·00
Maharashtra	1,24,415	75,000	1,99,415	30·00
Mysore	79,275	60,000	1,39,275	24·00
Nagaland	...	...	...	·17
Orissa	512	83,000	8,812	5·00
Punjab	68,020	50,000	1,18,020	20·00
Rajasthan	18,745	15,000	33,745	9·00
Tamil Nadu	3,94,151	1,00,000	4,94,151	40·00
Uttar Pradesh	69,191	1,75,000	2,44,191	70·00
West Bengal	1,256	16,600	17,856	10·00
States	10,60,905	7,37,850	17,98,755	312·67
Union Terri.	7,772	4,010	11,782	5·40
Centre	...	...	...	45·00
Centrally sponsored Rural Electri. Corporation	...	5,00,000	5,00,000	...
Total	10,68,677	12,41,860	23,10,537	363·07

(Source : Fourth Five-Year Plan Draft, 1969–74, pp. 214–15.)

a village is generally considered to be the cost of transporting electric energy from the nearest supply point to the consumption point in village.[10] According to the Chief Engineers of the State Electricity Boards the costs of electrifying a typical village in different States come to be as shown in table 7.

TABLE 7

Cost of village electrification for different States

States	Average cost per typical village (Rs.)	Connected load per village (kw.)	Cost per kw. of connected load (Rs.)	Cost per capita (Rs.)
Andhra Pradesh	76,100	169·7	370·7	19·37
Assam	1,97,500	N.A.	N.A.	N.A.
Bihar	30,000	60·6	339·6	7·03
Gujrat	1,34,850	132·7	680·2	32·25
Jammu & Kashmir	N.A.	N.A.	N.A.	N.A.
Kerala	40,000	70·7	457·4	14·88
Madhya Pradesh	78,040 57,240	265·6	523·7	34·31
Maharashtra	80,000	79·7	804·4	33·82
Madras	30,000 40,000	161·5	383·5	34·41
Mysore	50,000	33·3	828·8	22·24
Orissa	75,000	56·00	233·00	10·11
Punjab	67,200	56·1	517·9	17·91
Rajasthan	80,000 100,000	N.A.	N.A.	N.A.
Uttar Pradesh	35,000	44·3	311·9	5·08
West Bengal	74,000	91·6	342·8	23·77
	75,900 74,420	93·6	493·00	20·99

(Source : Compiled from the Report on Evaluation of the Rural Electrification Programme, PEO, Planning Commission, Govt. of India, 1965).

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[10] The supply of electricity to a village involves, first, the transmission at high voltage from the tap off point, secondly, the installation of transformers, thirdly, the transformation of the high voltage to low voltage at the sub-stations, and fourthly, the distribution at low voltage. The major components of costs are the high tension and low tension lines. The length of former depends upon the distance from the tap off point, and of the latter depends on the total distance from the distribution transformer.

The guiding criteria generally adopted for the selection of villages for electrification are: remunerativeness, nearness to the main transmission line, population and accessibility. In Punjab a provision of 10% in project estimate is made for electrifying villages en route. This is a good practice and can be adopted by other States.

The unweighted average cost of electrification per village in the country as a whole comes to Rs. 74,000/-, varying between Rs. 1,97,500/- in Assam to Rs. 30,000 in Bihar. The modal range of the cost is Rs. 50,000/- to 75,000/-. The cost, as obtained from village schedules, comes to Rs. 46,159 per village. According to the different groups of villages it come to:

	Rs.
1. *Land categories*	
Primarily agricultural	50,854
Primarily industrial	36,811
Agricultural-cum-industrial	65,351
Others	38,243
2. *Population groups* :	
Below 500	14,594
500—1,000	22,828
1,000—2,000	37,031
2,000—5,000	57,029
5,000—10,000	1,14,447

The components of cost on an average work out to be:

(i)	Cost allocated to 33 kv lines	Rs. 31,300
(ii)	Cost per mile of II kv line	11,360
(iii)	Cost per mile of L.T. line	13,420
(iv)	Cost per service connection	
	(agriculture)	677
	(industry)	310
	(domestic)	116
(v)	Cost of transformer	9,400
(vi)	Establishment charges	9,800

The major components of costs, therefore, are the high tension and low tension lines accounting for 29% and 31%. Besides, the cost of transformer for a typical village is about Rs. 10,000/-. The cost per service connection, on an average, is the highest for agricultural load; followed by that for industrial, and being the least for domestic loads.

IMPACT OF RURAL ELECTRIFICATION AND TARIFF RATES

Rural electrification is a powerful instrument of modernizing the primitive agrarian economy through the development of minor irrigation, of improving and establishing small scale village industries, of opening the possibilities of emergence of agro-industries, of diversifying the industrial pattern, and of providing the amenities of life, and thereby narrowing down the gap between the rural an the urban communities.

In the field of agriculture the impact of availability of electricity is quite visible. Irrigation has expanded[11] and the comparative costs of electrification of well (or the comparative cost of operation per acre-inch of water) is much less than in the case of dieselized pumps.[12] New areas have been brought under cultivation, double cropping has increased; cropping patterns and farm practices have changed; intensity of cultivation has increased, and consequently there is an enhancement in farm productivity and production and in farm incomes. Both for human and bullock labour the working hours are reduced; and there is a decrease in the hired labour on farms. In the field of industries the impact is equally remarkable. Taking all rural industries together more than 3/4 of these units were started after electrification. Only 1/4 switched on to the use of electricity from the traditional methods of operation. Many units have combined new industries and have diversified production. Besides, there are many indirect benefits. There is a change in the working time schedule and in industries there is on the whole a reduction in the working hours. Rural life has become more attractive and interesting for the educated youth to live in villages instead of migrating to cities. It induces doctors, teachers and entrepreneurs to come to villages. Security conditions in villages are improved; and the chances of fire are reduced. There is a change in the reading habits too. In short, the economic horizen of the village people is widened, new potential for economic activities has opened out and the total outlook towards life and progress has changed.

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[11] About the extent of irrigation by electric pumps the Study of the PEO showed that 'pumps accounted for 11·7% of the total area irrigated, but in the sample villages having electric pump sets they were responsible for 30·7% of the total irrigation. Further 80·3% of the area irrigated from wells in these villages was covered by wells fitted with electric pumps. For the sample of all villages the % of well irrigated area accounted for by electric pumps was 36·3%'.

[12] For lifting water farmers use different sources of power. Animal power is being replaced by mechanical power which is more economical and convenient. Mechanical power is supplied by two types of machines: oil engines and electric motors. The former consume light diesel oil, high speed diesel, power kerosene and petrol as fuel, and supply power to the pump, whereas the latter convert electricity into mechanical energy to operate pumps to lift water. Out of all the different types of fuels for oil engines the light diesel oil (popularly known as the crude oil) is the cheapest per HP hour operation, hence farmers prefer light diesel engines to other types of oil engines. The use of light diesel engines as prime movers is called *dieselization* and the use of electric motors as prime movers of pumps is termed as *electrification* of wells.

Many recent studies of comparative economies and costs of irrigation of diesel and electric pumps (S.M. Patel in Gujrat, Shah and Singh in North-West U.P., Dhondyal and Singh in Eastern U.P., K. K. S. Chauhan and Agrawal in Rajasthan, and several others like Patil and Hinge, Bore, Patil and Sohoni, Giri and Mukhopadhyaya, etc.) have shown that electric pumps are comparatively much cheaper.

However, in this connection it must be noted that subsidizing of electricity for rural areas and taxation of diesel largely widen the difference. Apart from these differences in fuel cost the other factors are: Higher lubrication costs, higher labour costs and larger share of fixed costs, which make dieselization more costly than electrified pumps.

The price paid by the ultimate consumers for electricity consists of two parts: the electricity tariff[13] and the electricity duty. The State Electricity Boards are concerned only with the first part. The existing tariff rates vary widely from State to State, and even in different areas within a State according to the source of power and the system of supply. They, however, do not vary within the same region as between rural and urban areas, but they vary according to the category of load—agricultural, industrial and domestic. The electricity tariff structure is, broadly speaking, based on two basic principles: (i) the average price of electricity to the consumer should fall as his consumption increases for a particular category of load, and (ii) the category of load which can bear heavier load should subsidise the category with lesser capacity to pay. Corresponding to the fixed and running costs the tariff generally has got two broad components—the demand charge and the running, or energy charge. In the case of consumers with low connected load tariff is generally levied in terms of unit or energy charge, and for those with high connected load both demand and energy charges are levied. The tariffs are of three types: (i) energy tariff at a flat rate (single charge is paise per kwh), (ii) energy tariff on a sliding rate (first slab of consumption at one flat rate, second at a reduced rate, and so on) and (iii) two-part tariff, consisting of a standing charge based on maximum demand, or kw of connected load and an energy tariff which may be at flat or sliding rate. Again, excepting in a few States like Rajasthan, Orissa, Assam, Jammu and Kashmir, and Kerala there is some sort of guarantee system prevailing in all States. This special guarantee is often worked out for connections for agricultural pumping.

In the case of rural electrification the contribution to total consumption by categories of load is: industrial 53%, residential and commercial 42%, and agricultural 5%. The contribution to total revenue is: industrial 56·6%, residential and commercial 37·8% and agricultural 5·2%. The average retail electricity charge per unit for different categories of loads varies from State to State. For the country as a whole it comes to: 13·28 paise for agricultural, 14·55 paise for industrial, 31·99 paise for domestic and 27·12 paise for commercial[14]. The tariff rates and the minimum charges for agriculture in the different States are as shown in table 8.

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[13] The electricity tariffs depend on and are so regulated as to cover the working expenses which include operation and maintenance costs of generation, transmission and distribution, interest on capital invested in the electricity undertaking of the State, depreciation, taxes and establishment charges, plus a small margin for contingency reserve to cover unforseen expenditure.

Tariff structure has also to take into account the cost of alternate source of power (this is important for industrial loads where cost of self-generation by captive steam plants becomes a relevant factor), as well as rates in the neighbouring areas.

[14] Report on Evaluation of the Rural Electrification Programme, PEO, Planning Commission, Govt. of India, 1965, pp. 265-66.

However, the average consumption of electricity per village and the overall charge (incidence) per unit of electricity in rural areas, by category of load, for 60-61, was as follows:

TABLE 8

Tariff rates and the minimum charges for agricultural use in different States.

States	Tariff rates	Minimum charges
Andhra Pradesh	(a) 122 kwh—9 paise per unit (b) 200—500 kwh—8 paise for all (c) If above 500—flat rate of 8 paise	Rs. 20 per h.p. per year
Assam	13 paise (F.R.)	...
Bihar	25 paise (North); 15 paise (South) (F.R.)	Rs. 36 per h.p. per year
Gujrat	29 p. (on most systems) F.R.	Rs. 60 per h.p. per year
Jammu & Kashmir	Rs. 4 per h.p. plus 4 p. per unit	...
Kerala	6 paise (F. R.)	Rs. 5 per month per meter
Madhya Pradesh	Chambal 11·5 paise Korba-Raipur 13 paise (F.R.)	30 units per month per h. p.
Madras	7 paise (F. R.)	Rs. 15 per h.p. per year.
Maharashtra	1—50 kwh—13 paise; next 150—12 paise; all excess 10 paise	Rs. 60 per h.p. per year
Mysore	1—105 kwh—5 paise; all excess 3 paise	Rs. 18 per h.p. per year
Orissa	31 paise (F. R.)	Rs. 5 per h.p. per month
Punjab	First 500 kwh—10·94 p. next 1,000—9·38 p.; all excess—7·81 paise	Rs. 60 per h.p. per year
Rajasthan	First 1500 kwh—11 paise; all excess—9 paise	Rs. 5 per month per service
Uttar Pradesh	12·5 paise (Steam Station in East area for State Tube wells) (F. R.). Ganga-Sarda grid 1—150 kwh—14 paise; all excess—12 paise	Rs. 60 per h.p., per year
West Bengal	(Suri-Pandveshwar gird 13 p.; North Calcutta grid 13 p.	Rs. 36 per h.p. per year

(Source: Compiled from the Report on Evaluation of Rural Electrification Programme, PEO, Planning Commission, Govt. of India, 1965, pp. 271-73).

TABLE 9

Categories of load	Average consumption per village		Average revenue per village		Overall charge paid per unit (paise)
	(kwh)	% to total	Rs.	% to total	
Agricultural	34,347	40·56	32,226	25·72	9·4
Industrial low and medium	26,640	31·45	3,802	30·30	14·3
Industrial high voltage	6,405	8·04	468	3·96	7·3
Domestic	9,471	11·54	3,155	25·94	33·3
Commercial	3,407	3·98	1,001	7·97	29·7
Street-lighting	2,363	2·82	558	4·49	23·6
Others	1,351	1·61	201	1·62	14·9
All categories	83,437	100·00	12,361	100·00	14·8

(Source : Report on Evaluation of the Rural Electrification Programme, PEO, Planning Commission, Govt. of India, 1965, p. 277).

PROBLEMS AND SUGGESTIONS FOR IMPROVEMENT

It is very costly to take electricity to villages and to farmers in rural areas. Considerations of cost generally favour the selection of those villages which are located near the transmission lines. Hence electrification of small scattered villages and of small farmers poses many difficulties, and is more serious[15]. The level of available capacity and the level of utilization are very low. There is considerable operational inefficiency, shortage of supply of equipment and its components, delay and corruption in mobilization of loan applications, disbursement of loans to borrowers and sanctioning of electric connections, and very inconvenient formalities in regard to deposits and guarantees. In regard to the integration of the rural electrification programme with the development plans for the areas proposed to be electrified in each district, progress in most of the States is very unsatisfactory. For extending their services to rural areas the biggest hurdle faced by the Electricity Boards is the inadequacy of finances for distribution network. In some States large part of the electricity generated is sold to bulk consumers below the cost of generation. Besides, the increase in the cost of materials, lubricants, fuel and wages has further increased the operation and maintenance expenses of the Boards. Briefly speaking, the problem areas are: (i) difficulties faced by the prospective users in switching over from diesel to electricity, (ii) starting new electrically operated units, (iii) arrangements of repairs and services, (iv) problems of unutilized capacity, (v) seasonality in energy consumption and demand, and (vi) the administrative problems.

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[15] The Fourth Five-Year Plan Draft recommends the setting up of a Small Farmers Development Agency to provide comprehensive ameliorative measures, with a provision of Rs. 30 crores. However, the problem is of indentification of farmers by the Agency.

A few suggestions in regard to policy and programmes relating to rural electrification (specially agricultural electrification) are as follows:

1. There is a need for proper perspective in planning, extension and transmission. The potential demand for different categories of use and the time horizen of its development should be taken into consideration, specially against the background of shortage of electric power in the country. There should be forward planning over a period of two to three years ahead of taking up the work so that simultaneous action is initiated on all the related sectors. Schemes should be carefully selected with a priority to less developed regions, so as to bring about regional balance.

2. In villages bulk of the load comes from irrigation pumping which is seasonal in character. Therefore, in each district different types of economic activities, requiring the use of power, should be developed in a coordinated manner. This can be done through a carefully formulated development programme for each area covering activities in the different fields of development, so that rural electrification makes the maximum contribution to increasing agricultural and industrial production. Secondly, the cost of extending electricity to irrigation pumping can be reduced by improving the combined load factor of a sizable group of consumers in an area. This is possible through improving the inter-group diversity and by rostering the load within the group. Diversification of irrigation load is possible through preferential tariff for resuming supply at odd hours, inducing farmers to irrigate their fields at nights, systematic staggering of cropping and by community installation of irrigation pump sets.

3. The standard concept for rural electrification, as spelt out by the C.W.P.C. should be strictly adhered to by all the States. Generation of low cost power is as important as adequate generation. In this regard the financial yardsticks for sanctioning rural electrification schemes should be rationalized. The costs can be reduced and the rate of return on investment can be increased by: adopting simplified and economic designs consistent with safety and reliability of service; procurement of equipment at low costs and utilization of indigenous materials to the utmost extent; and through a change in accounting procedure, i. e., allocating a part of the actural capital cost of rural electrification to non-rural electrification schemes.[16]

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[16] In allocating costs of over-head line to rural electrification schemes three broad patterns are followed by different States. First, is shown by the practice in Mysore where there is a set of transmission schemes side by side with schemes of rural electrification. Costs of the former are not allocated to rural electrification even though such lines feed villages The second pattern is adopted in U P. where not only the costs of 33 kv lines and 33/II kv sub-stations are not allocated, but even the full cost of II kv lines is not allocated to rural electrification. The rule is to exempt a specified length of II kv lines, at the rate of 1 mile for each 30 kw of load in the village to be electrified. The third pattern consists of not allocating the cost of 33 kv lines and 33/II kv sub-stations to rural electrification schemes.

4. Transmission needs appreciable improvement. It will be better to have a master-plan for transmission network for all parts of States. This should be given special priority in those States where bulk of the generation is from thermal stations which tend to be located closer to consumption points than hydle stations. For the maximum utilization of the available capacity and for reducing peak demands on their systems, some of the States will have to resort to fuller utilization of standby capacities and to a rostered basis for meeting the demands. An integrated operation of State-grid systems, utilizing inter-State lines, should also be adopted for maximizing the benefits.

5. Financial assistance to the State Electricity Boards should be provided on liberal terms. It may be in the form of grant-in-aid, subsidy, interest-free loan, or long-term loans on low rates. The State governments may consider the subsidising of their Electricity Boards to the extent of the difference in the rates of interest charged by commercial banks and those charged by the State governments.

6. Special efforts should be made to cover small villages and small farmers. For the former 'village approach' should be given up in favour of an 'area or cluster approach', in view of the agricultural and other potential. In regard to the latter village panchayats can be helpful in the utilization of electricity by small farmers by paying electricity deposits to the State Electricity Boards. Besides, the small farmers Development Agency and other organizations could commission their own energized wells and sell water to small farmers. And a number of small farmers in a contiguous area should be allowed to provide joint mortgage when they individually do not have the necessary mortgageable land.

7. There is a need for man-power planning to meet the shortage of the technical personnel required for repairing and servicing. There is also a need for a smooth and regular administrative coordination so as to bring about operational efficiency in production, transmission and distribution of electricity. The programme of rural electrification should be action-oriented for administration. Besides, corruption at the lower level should be minimized as far as possible. And the supply of materials and components should be made satisfactory.

8. In the development of rural electrification cooperation and participation of the village people are expected to be important elements. Their contribution in labour time is expected to reduce its costs. So far their response has not been encouraging. It should be mobilized as a part of the Rural Works programme.

Agra University Journal of Research (Letters),
Vol. XVIII, Pt. I, January, 1970.
Pages 67-74

SOCIAL DISORGANIZATION

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I

HISTORICAL PERSPECTIVE

Political thinkers like Plato emphasized certain characteristics of social organization. According to his viewpoint Justice is the bond which holds a society together, a harmonious union of individuals, each of whom has found his life work in accordance with the natural fitness and training.[1] From this view it can be derived that in a society (or other social institution) will experience disorganization if there is no justice.

Adam Smith gave concept of natural justice to the institution of exchange. According to his viewpoint what was natural (not the product of human intervention) was also just. Hence human intervention was condemned consequently demand and supply became invisible hands of God.[2]

Karl Marx was first to challenge the concept of social justice. According to his viewpoint profit was exploitation. It was possible due to ownership of means of production. Rapidly changing society created unemployment which increased the scope of exploitation. Competitive organization makes ever increasing exploitation as inevitable consequence of capitalism. He has pointed out socialism as the only remedy.[3]

The idea of justice has been very aptly elaborated by Elton Mayo in the context of modern industrial culture. Industrial society is considered to be disorganized, because it offers neither security of job nor regular employment to worker. Other system of disorganization is that success is measured by the quantity of wealth enmassed rather than by personal responsibility or other criteria of social value.[4]

Thomes Hobbes propounded a theory of Social Crisis on the concept of human nature. Man is by nature brutish. Constant work create conditions in which everyone is enemy. Hobbes regards this to be natural state of society.

T. R. Malthus viewed population to be an important factor of Disorganization. The tendency of population is to exceed the level of means. War, revolution, blood-sheds, famine, flood and starvation are positive checks. His theory blends natural and social factors of crisis.

This analysis of economic and political theories reveal that factors like justice, rapid technology, population and human nature were held to be responsible for social problems. These elements are also significant for the understanding of modern theories of social disorganization.

II

Durkhiem formulated concept of Anomie. Anomie (or disorganization) implies two things: (1) Norms are consistent to the situation, and, (2) their holds over individuals conduct is effective, that is, they get themselves obeyed.[5] He singles out individualism as the main factor of disorganization. Individualism has gained importance in industrial societies. Consequently there is trend of increasing social disorganizantion. He has characterised pure individualism as the highest state of social disorganization.

Theory of Socialization is inherent in Durkheimian concept of disorganization. Proper internationalization of norms will result in desireable forms of behaviour and should be regarded as morality. It is only when morality fails, the need for legal norms arises. The viewpoint has been supported by Sellin. He states that no resistance is felt by those who have not internalized norms.[6]

Socialization as a factor of disorganization has been very aptly elaborated by Arnold M. Rose. He clearly states that social disorganization occurs when a significant portion of meaning and values are no longer sufficiently internalized to guide the behaviour of significant proportion of individuals still in physical contact with one another.[7] In criminology Sutherland, Elbert Cohen, Leena Barker and William Whyte[8] subscribe to one of another version of socialization.

Normative aspect of Social Disorganization has received due attention from thinkers like Robert Faris[9] and Maurice Krout.[10] Faris attributes failure of organization (individual, institution or group) to lack of integration. 1. Lack of integration (or functional disorganization) may cause failure to satisfy needs of people. The point is significant for the understanding of Krout's concept of Disorganization. He defines disorganized society as one, "in which normal forms of social control no longer operate; the normal ways of satisfying wishes are no longer easily available.

Thus analysis of various concepts of social disorganization reveals importance of normative rules and their working directly through legal norms and institutional checks or indirectly through socialization which create moral resistance and is more effective than external force of law.[11] Positional element like status and rent and their functional aspect (role) and processes of reward and punishment are also significant variables of the theories of social disorganization.

Psycho-Analitical theory brought importance of unrooted people due to rapid social change. People reject their past and try to reconstruct a new society. Thus they ignore historical and functional continuities. Their attempt bring social disorganization. Restlessness, anxiety, aloneness, despair and nothingness are symptom of alienated people. The viewpoint has been supported by thinkers like Nietzsche, Kierkguard, Jaspers and Sartre.[12]

III

SCOPE AND METHOD OF STUDY

Concept of social disorganization includes a large number of problems like Juvenile delinquency, Crime, Neuorosis, family disorganization, Alcoholism, industrial unrest, social conflict, revolution and war. Such diverse phenomena are included in this concept because they have one characteristic in common—mal-adjustment of social or personal relations. They are product of rapid social change generally produced by industrialization.

Importance of social disorganization is partially due to its wide scope and partly due to interrelatedness of the various problems. The interrelatedness may be due to common genesis of these problems. Dr. R.K. Mukerjee has very aptly elaborated this aspect of social disorganization. According to his viewpoint[13]—"Individual and group disorganization constitute a system." A society experiencing chaos or disorganization exhibits a whole constallation of individual and social neurosis, crime, immoralities and other pathological features that fit into one another and in a system.

Since social disorganization is an important branch of sociological enquiry. Let us briefly discuss various approaches of its study. Don Martindale[14] has suggested following methods for the study of social disorganization: 1. Cultural Lag. 2. Ecological. 3. Social Organization.

1. *Cultural Lag*

Concept of cultural lag pre-supposes changes in material culture, and consequently lack of change in non-material culture. Following are the main criticism[15] of this approach.

(i) Distinction of material and non-material culture is confusing. In some cases even adaptive culture can be material for example technique of afforestation is also product of material culture.

(ii) Prof. Ogburn suppose that there has been no significant evolution, biologically, in man since the last glacial age. This is questionable assumption.

(iii) There has been no change in humal biology. Hence changes in culture have produced lag. This is questionable because he has not described in detail culture most appropriate to human nature.

(iv) It is difficult to accept that only non-material culture lags. In fact material culture may not be as efficient as desired by the people for example in

India people desire better technology than the present one. This shows lag of material culture.

2. *Ecological Approach*

Ecology means study of spatial distribution of population in reference to material and social causes and effects.[16] Since urban conditions are conducive to disorganization, it is desirable to study ecological pattern of various types of social disorganization. Prof. Burges[17] found spatial co-relation between size of family and housing areas or zones. His findings are supported by the study of Andrew G. Truxal and Francis R. Merill.

E. L. Faris and Worren H. Dunhan[18] found that insanity fits well into the ecological structure of city. The cause is that urban conditions, particularly lack of normal and stable social relation, produce mental illness.

In 1930 Clifford R. Show developed sociological school of Criminology Prof. Edwin H. Sutherland[19] found that areas of concentration of Juvenile delinquency are also areas of physical deterioration, congested population, economic dependance, rented house, foreign born and adult criminality. The viewpoint has been supported by Criminologists like Frank Tannenbaum[20] and Cavan.

In U.S.A. Ecological school furnished valuable material to modern criminology. Some conclusions of this school are valid, i.e. Urbanization leads to crime and urban conditions are conducive to criminality. In brief ecological school made following significant contributions in the field of crime.

(1) In 1931-32 Stores in Chicago were robed two as large a percentage as in the zones of 25 miles away from Chicago (rate being 59·6 and 29·8).

(2) City rates were 9 times compared with the rate of hundred twenty-five miles zone.

(3) In case of murder, manslaughter and serious sex offences there was little difference between rural and urban areas, but for other offences urban rates were much higher.

(4) Since 1945 figures show that rural crimes have increased and offences against property are mounting.

My own study[21] of crime and urbanization gave the following results:—

Period	*District*	*Correlation of*	*Crime with Population*	
		District	*Rural Areas*	*Urban Areas*
1891-1901	Kanpur	+0·13	+0·56	+0·70
1901-1951	Lucknow	−0·56	−0·14	−0·70
1891-1931	Allahabad	−0·52	−0·42	−0·95
1891-1931	Agra	+0·31	+0·17	−0·93

In India Ecological approach is based on data of a very short period. For example Dr. S. S. Srivastava[22] based his study on the facts of a single year. My own study deals with the data of four years. From such studies one can conclude rural urban differences and not ecological patterns. Hence they are inconclusive.

In all these studies criminalities are proved by courts. It has been aptly remarked that the school fails to take account of the fact that the children of upper classes are less frequently arrested and prosecuted. It has also overlooked the differences between Residence of an offender and place of his Offence. In vast majority of cases these two may not coincide.

Alternative approach to this problem is based on the concept of differential criminality. According to this theory as one moves from lower to upper classes proportion of criminality (based on court cases) increases. Data of Yankee City collected by W. I. Warner and P. S. Lunt[23] reveal this tendency. Upper and lower classes constitute 3% of urban population but percentage of arrest for this group is only 0·71. Upper and lower middle classes constitute 38·34% of urban population but it shares only 9·64% of arrests. Upper and lower classes constitute 57·82% of urban population but this share is 89·65% in total arrests.[24]

Morris supports this explanation. He demonstrated (from status of delinquents released on probation and sent to approved school) that not even one child comes from upper class (I & II) but lower classes (IV & V) produced greater proportion of delinquents although they constituted smaller p.c. of total population. Following are the relevant facts:—

Social class	*Percentage of Criminals*
Unskilled Workers	35
Semi-skilled workers	18
Skilled workers	11

Thus Economic status is more significant than the fact of urban residence.

Causal conception has been reported between family income and chances of arrest. It has been demonstrated by Sophia Robinson that higher the parental income the fewer the child's chances of coming into court, partly because of the greater importance of familial or pedagogic agencies of social control, higher up the social status of family.[25]

3. *Social Organization*

All theories of disorganization take organization as a base.[26] Disorganizations are interpreted as due to changes in conditions and processes producing organizations. Perfect organization is an ideal construct. Hence all societies must have some degree of social disorganisation. Social organization[27] means a dynamic equilibrium of (A) Population (B) Technology (C) Ideologies (D) Socialization and Personality (E) Social Institutions and organization. All social problems will be viewed as due to non function or dysfunction of these values. Theory of cultural lag views primitive culture of glacial age as most suitable to human nature. Ecological approach views society with optimum population producing optimum wealth as most suitable. Taking view of Industrial conflicts (which are mostly based on the demands of more men) more equitable distribution is also desireable.[28] Even further expansion of industries based on technological capacities demands equitable distribution of wealth.

If we look to the problems of modern industrial societies, it will be clear that they are not free from problems of unemployment, poverty and over urbanization. Apart from the psychological disturbances created by over urbanization, unplanned and unregulated industrialization produces following problems[29]:—

Impairment of human factor of production, air, land and water polution deplation and destruction of animal resources, deplation of energy resources, soil erosion and deforestation, unemployment and idle resource monopoly and social losses, high cost of distribution and transportation, health problems and unhealthy environment. U.S. President Nixon is also of the opinion that pure air, land a d water will be the greatest problem[30] of 1970's. Existing problems will grow and new problems will arise with the coming of cybernatic revolutions. Increased production will necessitate more equitable distribution of wealth. Thus, future society is likely to force unprecedented tempo of technological change and hence lags of social institutions and organizations are inevitable.

IV

BASIC DIFFICULTIES

The main difficulty is that social disorganization is a subjective concept. Facts of crime, alcoholism, family disorganization, community disorganization, attempt to give an objective form to social disorganization. In fact social disorganization requires a society or a frame of reference which is perfectly organized. Since no society is perfectly organized in this sense that it has no problems, therefore, perfect social organization is an hypothetical condition.

THEORIES OF FUTURE REFERENCE

Above discussion regarding the theories of disorganization reveals the real nature of methodological difficulty. These difficulties should not obscure the real value of these theories. For example one should not think that theory of cultural lag has only historical evidence. Problems of higher magnitude are likely to merge after cybernatic revolution. Problems of unemployment, leisure, housing, industrial management, polution of air and water will attend unprecedented importance. Similar condition may prove Marxian prediction of Capitalistic crisis. In brief theories of social disorganization are important not only for the analysis of contemporary problems but the future significance of these theories goes undisputed.

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FARM PRODUCTION FUNCTIONS AND LABOUR PRODUCTIVITY ON SMALL FARMS

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THE PROBLEM

In a country like India where the scope for extension of cultivation is rather limited, increase in agricultural production can be brought out by raising agricultural productivity. Intensification or diversification of farming is a common means to raise agricultural productivity. The former is to increase output by adding more inputs. The later refers to combine crops, livestock and other enterprises on the same unit of land in order to produce supplementary and complementary effects.

Agricultural economists are concerned with the efficiency with which resources are used with the farm, among farms and between agriculture and the other industries. Optimum resource allocation is attained when the economic returns on a particular resource are equalised in its several alternative uses. Likewise land, labour and various forms of capital are combined in various ways in the several alternative enterprises on the farm. The criterian for the determination of efficient use of resources is based on the marginal productivity of the different production resources. Theoretically, when there is unlimited capital available, a farmer maximises his income by using each production practice upto the point where the marginal value productivity equals the marginal cost of the factor. Where there is only limited capital available, a farmer maximises his income by shifting the resource from the enterprise where its marginal value productivity is lower to the one where it is higher until the marginal value productivity of the resource becomes equal in all enterprises. If the resources happen to be the working capital which can be converted into physical value input, the farmer will drive maximum return from it and every rupee invested in each resource and in each enterprise has the same marginal productivity.

In the theoretical situation of a family farm where the amount of labour is fixed, a farmer does not pay for labour as a marginal or market wage. Increased input of family labour would therefore not increase costs but might increase labour income. Thus it may sometimes be possible to apply family labour to the extreme point where the marginal labour productivity equals zero or negative.

THE SCOPE

For the present study the limit of small farms is fixed at half of the plough unit which varies from 6 to 10 acres. Farmers having less than one acre of land are not included in the study since they are not mainly farmers. The study is based on field data, collected from 122 small farms, spread over 9 villages of the Meerut district, selected by stratified random sampling and investigated by survey method. For stratification, the district is divided into different blocks and zones on the basis of land utilization, cropping pattern and irrigation resources. At first stage the district is divided into two Areas viz., Sugarcane and Wheat both these Areas are further divided into high irrigated and average irrigated zones. In Sugarcane area, the high irrigated zone is again divided into factory block* and non-factory block and average irrigated zone into Khadar** and non-khadar block while no such classification is made in wheat zones. Sugarcane and wheat are the main crops of the district and about 63% of cropped area is irrigated in which nearly 2/3 is by canal. Soil is mostly loam and the double cropped area is about 40%. The data relate to the year 1964-65.

THE EVIDENCE

Plaxico has suggested that if farmers were using essentially similar production techniques and producing much of the same combination of products than Cobb-Douglas function can provide a legitimate basis for farm planning[1]. In this study, this power function has been used to determine the marginal production of labour at the geometric means and to compare them. In India, even in the same locality, this function was found to be useful and quite satisfactory[2], thirdly, this was expected that there were diminishing marginal returns, fourthly, its wide uses in studies of this kind is due to its conformance of economic theory and the case of statistical compilation[3].

RESULTS

The production function fitted for 122 farms of the three blocks and two zones in the present study includes the variables:

$$Y = a\,X_1^{b_1}\,X_2^{b_2}\,X_3^{b_3}\,X_4^{b_4}$$

Y = Value of all crops raised on each farm.

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* Factory block is the region, where most of the sugar mills are located.

** River bed area. The river Ganges passes through this region.

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X_1=Human labour in man-days.

X_2=Percentage of irrigated area to total sown area of each farm.

X_3=Percentage of manured and fertilized area to total sown area at each farm.

X_4=Percentage of cash cropped area to total sown area at each farm.

All of the calculations have been done on per acre basis. The bullock labour has been excluded since it is highly correlated with human labour judged by multi-correlated method. The over head costs-depreciation, interest repairs etc., also have been excluded since they hardly exercise any direct influence on gross income as well as on productivity. The value of other working capital like, use of seeds, insecticides etc., hardly differs from farm to farm on per acre of cropped area.

The influence of above studied variable factors is directly on gross income and productivity of labour.

The test of analysis of variance has been applied to test the significance of the function. It is found highly significant which indicates that expected gross income from the mean input variable is the same as the actual value, which confirmed the correctness of constant 'a'. The following results are obtained:

No. of farms: 122.

The production function derived is:

$$Y = 11 \cdot 501\, X_1^{0 \cdot 4992}\, X_2^{0 \cdot 1625}\, X_3^{0 \cdot 0865}\, X_4^{0 \cdot 0913}$$

Analysis of variance is as given in table 1.

TABLE 1

122 *Small Farms* : *Analysis of Variance.*

Source of variation	D. F.	S. S.	M. S. S.	F.
1. Due to regression function.	4	3·3630	0·8407	87·57*
2. Deviation from regression function	117	1·1636	0·0099	...
Total	121	4·5266	...	...

* Significant at 5% level of significance.

The coefficient of multiple determination is 0·74 at 5% level of significance which shows that 74 per cent of the variation in output is explained by factors included in analysis. The remaining 26 per cent variation is due to other variables not included in the equation.

The regression coefficients and their Standard Errors are given in table 2.

TABLE 2

122 *Small Farms : Regression Coefficients and their Standard Errors*

Category of variable	Regression coefficients	Standard Errors
1. Human labour	0·4992*	0·0611
2. Irrigated area	0·1625*	0·0731
3. Manured and fertilized	0·0865*	0·0292
4. Cash cropped area	0·0913*	0·0181

* Significant at 5% level of significance.

The sum of regression coefficients is 0·8395. More the labour input more will be the total output but will reduce the marginal and average values of product.

The estimated marginal value productivities with their geometric means are given below in table 3.

TABLE 3

122 Small Farms : Estimated Marginal Productivities

Input variable	Average size G. M.	M.V.P.
1. Human labour	66·00	2·55
2. Irrigated area	72·17	0·73
3. Manured & fertilized area	50·88	0·62
4. Cash cropped area	21·68	1·97

The marginal productivity of labour input is Rs. 2·55. The marginal productivities of all the other variable also found positive. This means that total output will increase by adding every variable. This indicates that M.V.P. of human labour is slightly higher than the daily wage rate being Rs. 2·50. Hopper[4] in Senapur village of Jaunpur district found that M.V.P. of labour is close to the wage rate. In this study higher M.V.P. of labour than the wage rate indicates that increased cost of living in the area of intensive cropping has increased demand for labour factors of production studied in this study further substantiate Sihota's hypothesis, i.e., in progressive agriculture, similar to that of the area included in this, the resources are used efficiently.

The M.V.P.'s for other three factors which are also positive, indicate that there are possibilities of increasing farm income by increased level of irrigation application of manures and fertilizers, and more area under cash crops, till M.V.P. becomes zero.

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The marginal and average value productivities of human labour at various levels of input are presented in the following table when other variables are held constant.

TABLE 4

122 *Small Farms : M. V. P. and A. V. P. at different levels of human labour input.*

Labour input in man-days	Marginal value of productivity Rs.	Average value of productivity Rs.
26	5·87	13·82
36	4·23	11·07
46	3·40	9·22
56	2·90	7·86
66*	2·55	6·54
76	2·09	5·67
86	1·88	4·80
96	1·62	4·10
106	1·33	3·66
116	1·17	3·20

* Average labour input for entire groups of farms (G.M.)

It is obvious from the above table that as the labour resource is increased, the average and marginal product both decrease which show the characteristics of stage II of production.

The breakup of the farms according to blocks and zones is also done for the calculations of marginal analysis. The following pages show the results obtained.

Factory block (High Irrigated Sugarcane Zone)

No. of farms : 16.

The production function equation resulted in the following equation:

$$Y = 26{\cdot}441\, X_1^{0\cdot4458}\, X_2^{-0\cdot3849}\, X_3^{0\cdot1833}\, X_4^{-0\cdot0776}$$

The analysis of variance is as given in table 5.

TABLE 5

Factory block : Analysis of Variance

Source of variance	D. F.	S. S.	M.S.S.	F.
1. Due to regression Function	4	0·0853	0·1213	4·35*
2. Deviation from regression function	11	0·0737	0·0067	..
Total	15	0·1590	...	...

* Significant at 5% level of significance.

The coefficient of multiple determination is 0·54 which shows that 54 per cent of the variation in output is explained by factors included in analysis. The remaining 46 per cent variation is due to other variables not included in the equation. This value of R^2 is significant at 5 per cent level of significance.

The regression coefficient and their standard errors are given below:

TABLE 6

Factory block : Regression Coffiecients and their Standard Errors.

Category of variable	Regression coefficient	Standard error
1. Human labour	0·4458*	0·1547
2. Irrigated area	—0·3849	0·5719
3. Manured and fertilized area	0·1833	0·1176
4. Cash cropped area	—0·0776	0·1148

* Significant at 5% level of significance.

The sum of the regression coefficients is only 0·1666. The regression coefficient of labour is significantly positive but less than one which means every additional unit of labour will increase the total output but will decrease the marginal value of product.

The estimated marginal value productivities with their geometric means are given below:

TABLE 7

Factory block : Estimated Marginal Productivities

Input variable	Average size G. M.	M.V.P.
1. Human labour	99·00	2·90
2. Irrigated area	96·33	—2·33
3. Manured and fertilized area	69·00	1·57
4. Cash cropped area	35·79	—1·28

The marginal value productivity of labour input is Rs. 2·90. It means that, on the average, the increase in labour input by one man-day will add Rs. 2·90 to the total output, other inputs being held constant at their geometric means. This indicates that M.V.P. of human labour is slightly higher than the daily wage rate of agriculture labour being Rs. 2·50 in the district. This indicates that cost of living and intensive agriculture has increased the M.V.P. of labour in this block. The marginal productivity of irrigated area is negative indicating excess of irrigation water. Positive M.V.P. for manured area (1·57) indicates the possibilities of increasing farm income by increased application of manures and fertilizers till M.V.P. becomes zero. Negative M.V.P. for cash cropped area indicates more percentage area under cash crops than the cereal crops which reduces soil fertility and ultimately marginal returns.

The marginal and average value productivities of human labour at various levels of input are presented in the following table when other variables held constant.

TABLE 8

Factory block : M. V. P. and A. V. P. at different levels of human-labour input.

Labour input in man-days	Marginal value of productivity Rs.	Average value of productivity Rs.
59	5·58	12·52
69	4·53	10·16
79	3·81	8·55
89	3·29	7·38
99*	2·90	6·50
109	2·59	5·80
119	2·34	5·24
129	2·13	4·77
139	1·95	4·38
149	1·81	4·06

* Average labour input for the entire group of farms (G. M.)

It is obvious that as the labour resource increases, the average and marginal value productivities both decrease, which shows a characteristic of stage II of production.

Non-factory block (High irrigated Sugarcane Zone)

No. of farms: 26

The production function derived is:

$$Y = 21{\cdot}65\ X_1^{0{\cdot}2186}\ X_2^{0{\cdot}4748}\ X_3^{0{\cdot}0640}\ X_4^{0{\cdot}1782}$$

Analysis of variance is as given in table 9.

TABLE 9

Non-factory block : Analysis of Variance

Source of variance	D. F.	S. S.	M. S.	F.
1. Due to regression function.	4	0·1137	0·0264	7·2[illegible]*
2. Deviation from regression function	21	0·0813	0·0039	...
Total	25	0·1950	...	...

* Significant at 5% level of significance.

The coefficient of multiple determination is 0·58. The regression coefficients and their standard errors are given in table 10.

TABLE 10

Non-factory block : Regression Coefficients and their Standard Errors

Category of variable	Regression coefficient	Standard Error
1. Human labour	0·2186	0·2784
2. Irrigated area	0·4748	0·5702
3. Manured and fertilized area	0·0640	0·0713
4. Cash Cropped area	0·1782	0·0954

The sum of regression coefficients is 0·9356. This again shows that production is being carried in the second stage of production function.

The estimated marginal value productivities with their geometric means are given below :

TABLE 11

Non-factory block : Estimated Marginal Productivities

Input variable	Average size (G. M.)	M.V.P.
1. Human labour	91·00	1·19
2. Irrigated area	95·61	2·05
3. Manured & fertilized area.	66·31	0·48
4. Cash cropped area	38·76	2·28

The marginal productivity of labour input is 1·19. All the variables give the response of positive returns. These findings indicate that contrary to the factory block farms, all the four factors of production are being allocated efficiently and have positive M.V.P. This is because of the fact that Factory block farms which are sure of the purchase of their sugarcane produce try to put more land under this crop and apply more irrigation water than required. Thus, negative M.V.P. to cash cropped and irrigated area results on these farms. The Non-factory farms which process their own sugarcane produce and convert into products like Gur, etc., try to use irrigated and cash cropped area more judiciously than the Factory block farms.

The marginal and average value productivities of human labour at various levels of input are presented in the following table, when other variables are held constant.

TABLE 12

Non-factory block : M. V. P. and A. V. P. at different levels of human labour input

Labour input in man-days	Marginal value of productivity Rs.	Average value of productivity Rs.
51	2·23	10·21
61	1·81	8·37
71	1·55	7·09
81	1·34	6·15
91*	1·19	5·43
101	1·06	4·86
111	0·96	4·40
121	0·88	4·02
131	0·81	3·70
141	0·75	3·42

* Average labour input for the entire group of farms (G.M.).

A perusal of the above table shows that as the labour resource increases, the average and marginal value both decrease which is a characteristic of stage II of production.

Non-khadar block (Average Irrigated sugarcane Zone)

No. of farms: 26

The production function derived is:

$$Y = 15{\cdot}070 \; X_1^{-0{\cdot}0544} \; X_2^{0{\cdot}0799} \; X_3^{0{\cdot}1306} \; X_4^{0{\cdot}0131}$$

Analysis of variance is as given in table 13.

TABLE 13

Non-khadar block : Analysis of Variance.

Source of variance	D. F.	S.S.	M.S.S.	F.
1. Due to regression function	4	0·0236	0·0059	1·55
2. Deviation from regression function	21	0·0818	0·0038	...
Total	25	0·1054	...	...

The test of analysis of variance shows the function to be insignificant. The coefficient of multiple determination is 0·22. Thus the prediction power of the production function is poor, explaining only 22 per cent of variation in the output. The regression coefficients and their standard errors are given in table 14.

TABLE 14

Non-khadar block : Regression Coefficients and their Standard Errors

Category of variable	Regression coefficient	Standard errors
1. Human labour	—0·0544	0·1415
2. Irrigated area	0·0799	0·1165
3. Manured & fertilized area	0·1306*	0·0610
4. Cash cropped area	0·0131	0·0317

* Significant at 5% level of significance.

The sum of regression coefficients come to only 0·1692. The regression coefficient of labour is negative meaning thereby that every additional unit of labour will decrease the total as well as marginal value of product. The regression coefficient of manured area is significant.

The estimated marginal value productivities with their geometric means are given below in table 15.

TABLE 15

Non-khadar block: Estimated Marginal Productivities

Input variables	Average size (G.M.)	M.V.P.
1. Human labour	58·00	—0·33
2. Irrigated area	69·18	0·58
3. Manured and fertilized area	48·98	0·86
4. Cash cropped area	12·02	1·03

The marginal productivity of labour input is Rs. —0·33. It means that, on the average, the increase in labour input by one man-day will reduce total output by Rs. 0·33. The negative MVP for the labour indicates the excess use of this factor of production, with the available resources. The positive marginal productivities of all the other inputs indicate efficient use of these inputs in the process of production.

The marginal value and average value productivities of human labour at various levels of input are presented below when other variables are held constant.

TABLE 16

Non-khadar block: A.V.P. and M.V.P. of human labour at different levels of input

Labour input in man-days	Marginal value of productivity (Rs.)	Average value of productivity (Rs.)
18	—0·18	23·08
28	—0·21	15·70
38	—0·23	10·30
48	—0·27	7·66
58*	—0·33	6·10
68	—0·42	5·06
78	—0·56	4·33
88	—0·77	3·78
98	—1·23	3·36
108	—1·80	3·02

* Average labour input for the entire group of farms (G.M.)

It is clear that as the labour resource increases, the average, marginal and also total (since elasticity is negative) values of output decrease, which shows a characteristic of stage III of production.

II. 1. *High Irrigated Wheat Zone*

No. of farms : 30

The production function derived is:

$$Y = 9{\cdot}661\ X_1^{-0{\cdot}0899}\ X_2^{0{\cdot}1725}\ X_3^{0{\cdot}1435}\ X_4^{0{\cdot}0612}$$

Analysis of variance is as given in table 17.

TABLE 17

High irrigated Wheat Zone: Analysis of Variance.

Source of variance	D.F.	S.S.	M.S.S.	F.
1. Due to regression function	4	0·0582	0·0145	1·91
2. Deviation from regression function	25	0·1902	0·0076	
Total	29	0·1054		

The coefficient of multiple determination is 0·23. The regression coefficients and their standard errors are given in table 18.

TABLE 18

High irrigated Wheat zone: Regression Coefficients and their Standard Errors

Category of variable	Regression coefficients	Standard Errors
1. Human labour	—0·0899	0·1731
2. Irrigated area	0·1725	0·1862
3. Manured and fertilized area	0·1435	0·1053
4. Cash cropped area	0·0612	0·0505

The sum of regression coefficients is 0·2873. Labour gives negative elasticity of production. The estimated marginal value productivities are given in table 19.

TABLE 19

High irrigated Wheat Zones : Eestimated Marginal Productivities

Input variable	Average size (G.M.)	M.V.P.
1. Human labour	63·00	—0·45
2. Irrigated area	87·09	0·33
3. Manured and fertilized area	50·61	0·77
4. Cash cropped area	18·73	0·31

The marginal productivity of labour input is Rs. −0·45. It means that on the average, the increase in labour input by one man-day will reduce Rs. 0·45 to the total output, other inputs being held constant at their geometric means. The marginal productivities of all the other input variables are positive, The marginal and average value productivities of human labour at various levels of input are presented below when other variables are held constant.

TABLE 20

High irrigated Wheat Zone : M.V.P. and A.V.P. at different levels of labour input.

Labour input man-days	Marginal value of productivity (Rs.)	Average value of productivity (Rs.)
23	—0·27	17·11
33	—0·30	10·70
43	—0·33	7·78
53	—0·38	6·11
63*	—0·45	5·04
73	—0·55	4·28
83	—0·70	3·72
93	—0·96	3·29
103	—1·23	2·95
113	—1·67	2·68

* Average labour input for the entire group of farms (G.M.)

The table shows that both the values further decrease as the labour input increases. The figures give characteristics of stage III of production.

II. 2. *Average Irrigated Wheat Zone*

No. of farms : 24

The production derived as:

$$Y=3{\cdot}880\ X_1^{0{\cdot}0178}\ X_2^{0{\cdot}4071}\ X_3^{-0{\cdot}0038}\ X_4^{-0{\cdot}0130}$$

Analysis of variance as is given in table 21.

TABLE 21

Average-irrigated Wheat Zone : Analysis of Variance

Source of variance	D.F.	S.S.	M.S.S.	F.
1. Due to regression function	4	0·1313	0·0343	4·70*
2. Deviation from regression function	19	0·1396	0·0073	
Total	23	0·2769		

* Significant at 5% level of significance.

The test of analysis of variance shows the significance of the function. The coefficient of multiple determination is 0·49. The regression coefficients and their standard errors are given below:—

TABLE 22

Average-irrigated Wheat Zone : Regression Coefficients and their Standard Errors

Category of variable	Regression coefficients	Standard errors
1. Human labour	0·0178	0·1581
2. Irrigated area	0·4071*	0·1420
3. Manured and fertilized area	—0·0038	0·0510
4. Cash cropped area	—0·0130	0·0340

* Significant at 5% level of significance.

The sum of regression coefficients is 0·4081. The regression coefficient of labour is positive meaning thereby that additional unit of labour will increase the total output.

The estimated marginal value productivities with their geometric means are given in table 23.

TABLE 23

Average-irrigated Wheat Zone : Estimated Marginal Productivities

Input variable	Average size G.M.	M.V.P.
1. Human labour	40·00	0·09
2. Irrigated area	42·66	1·79
3. Manured and fertilized area	19·50	—0·04
4. Cash cropped area	3·09	—0·76

The positive marginal productivity of labour and that of irrigated area in the zone indicate efficient use of labour and irrigated water. The negative marginal productivities of manured and cash cropped area show that high dosages of fertilizers and manures are used for cash as well as non-cash crops. Since mostly desi varieties of wheat are the crops in the zone the fertilizers use resulted into negative response.

TABLE 24

Average irrigated Wheat Zone : M.V.P. & A.V.P. at different levels of human labour input

Labour input in man-days	Marginal value of productivity (Rs.)	Average value of productivity (Rs.)
10	0·73	40·93
20	0·22	12·54
30	0·13	7·41
40*	0·09	5·26
50	0·07	4·07
60	0·06	3·32
70	0·05	2·81
80	0·04	2·43
90	0·04	2·31

* Average labour input for the entire group of farms (G.M.)

It is obvious that the production function runs in the second stage of production.

SUMMARY AND CONCLUSIONS

The study was undertaken with the object of estimating resource productivity and investigating resource allocation in different zones of Meerut District. Despite the limitations of the Cobb-Douglas type function which have been discussed fairly well in recent literature it has been used in the present analysis. The following conclusions can be drawn based on the above calculation.

(i) The production functions are running in the rational stage of production.

(ii) The marginal productivity of human labour is little higher than the prevailing market wages.

(iii) The marginal productivities of cash cropped area, irrigated area and manures and fertilized area are positive, show that the production can be increased by applying these variables intensively.

AVERAGE AND MARGINAL LABOUR PRODUCTIVITY ON SMALL FARMS OF MEERUT DISTRICT
1964-65

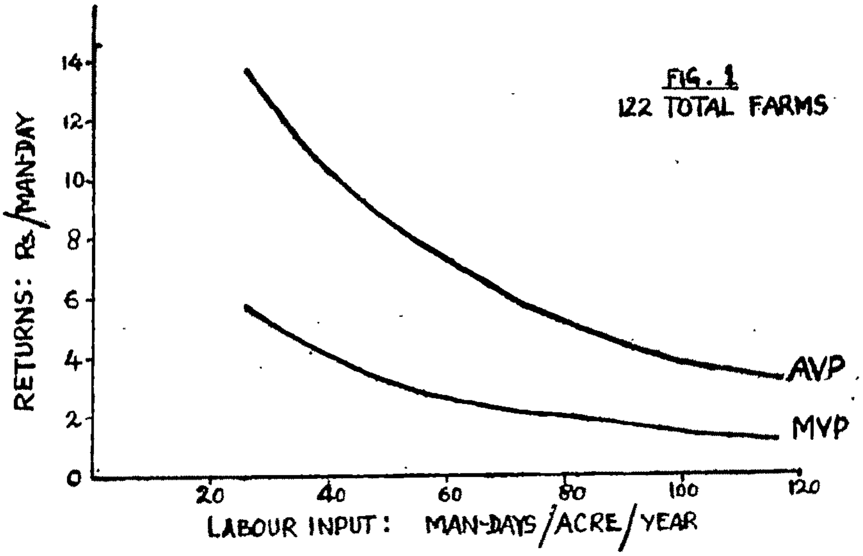

FIG. 1
122 TOTAL FARMS

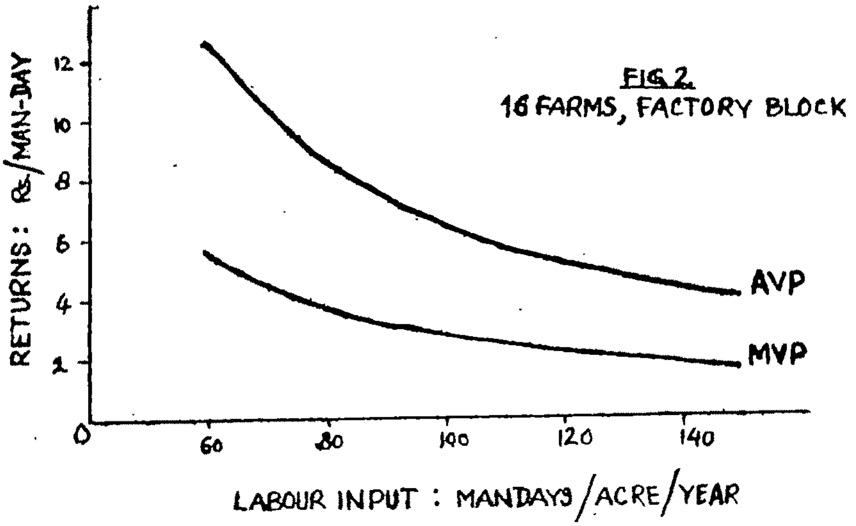

FIG 2.
16 FARMS, FACTORY BLOCK

AVERAGE AND MARGINAL LABOUR PRODUCTIVITY ON SMALL FARMS OF MEERUT DISTRICT
1964-65

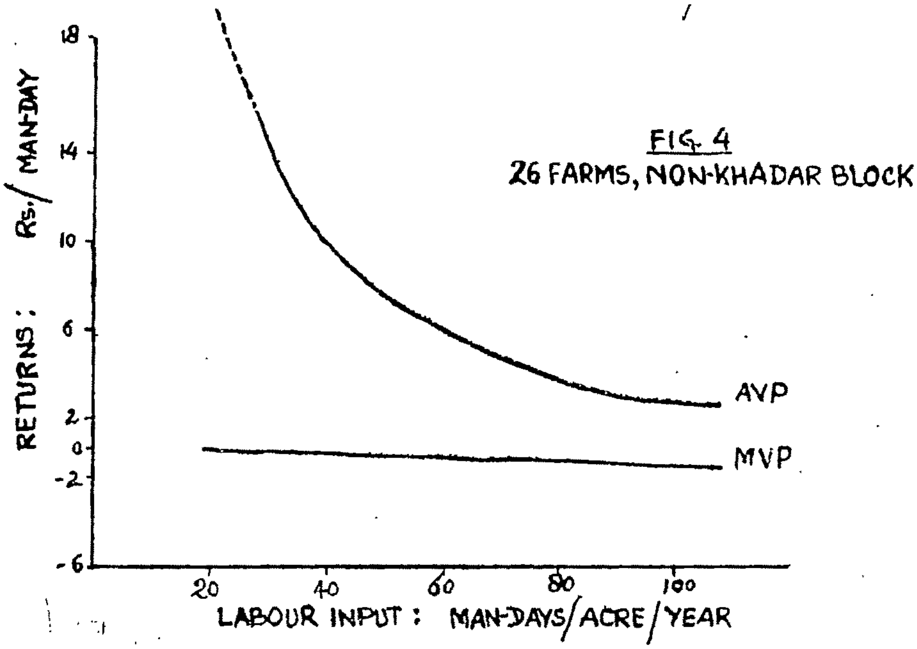

FIG. 4
26 FARMS, NON-KHADAR BLOCK

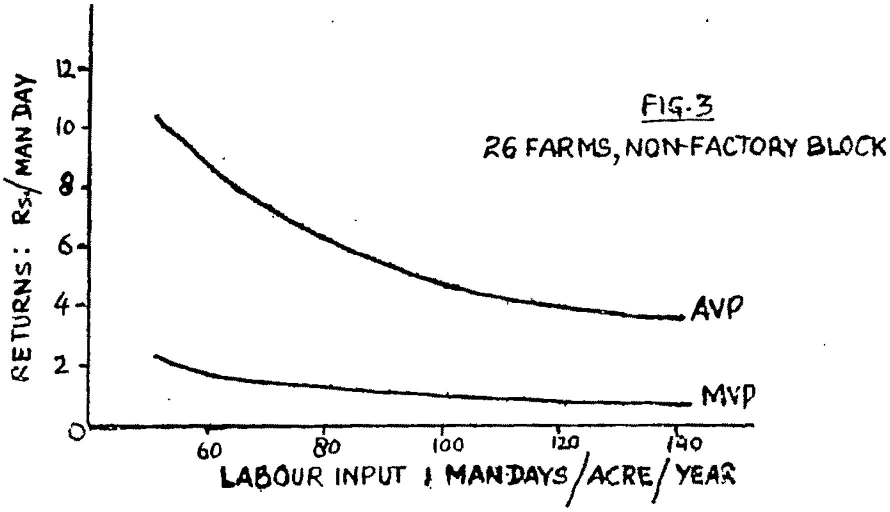

FIG. 3
26 FARMS, NON-FACTORY BLOCK

AVERAGE AND MARGINAL LABOUR PRODUCTIVITY ON SMALL FARMS OF MEERUT DISTRICT
1964-65

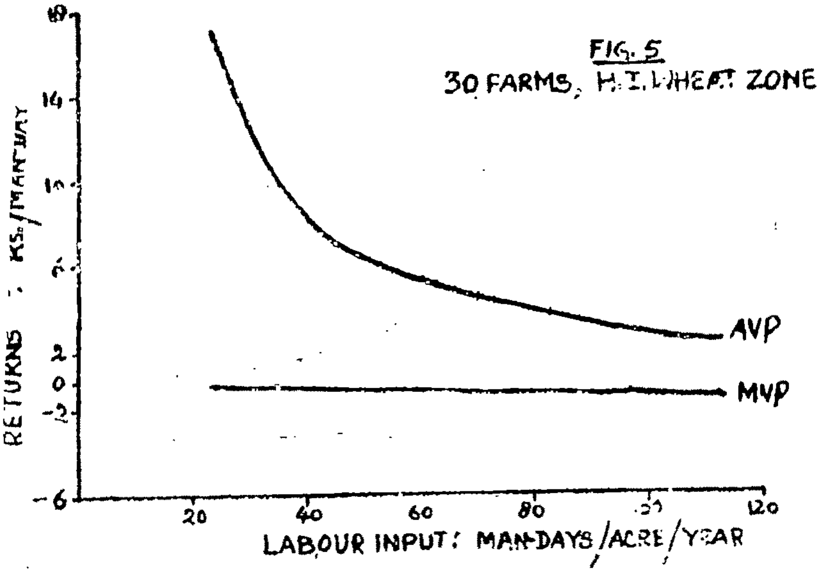

FIG. 5
30 FARMS, H.I. WHEAT ZONE

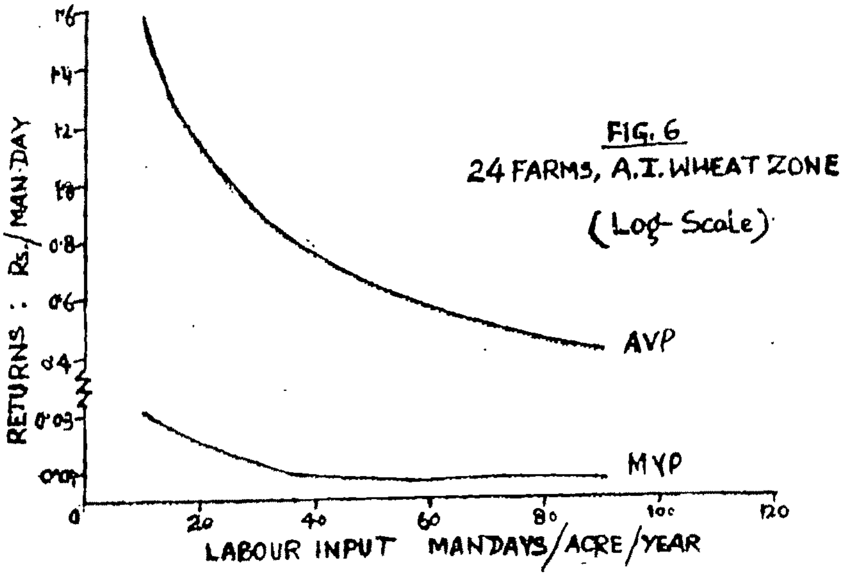

FIG. 6
24 FARMS, A.I. WHEAT ZONE
(Log-Scale)

Agra University Journal of Research (Letters),
Vol. XVIII, Pt. I, January 1970.
Pages 93—98

DIDACTICISM WAS THE UNDOING OF WORDSWORTH'S POETRY

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From ancient times the purpose of poetry has been accepted as instruction and delight. The proportion of the two elements has varied in different poets and critics. For some instruction should be subordinated to delight, for others delight holds the supreme place in poetry. For yet others poetic instruction is accomplished only through delight. Poetry that aims primarily at instruction is called didactic. Its distinctive feature is the absence of emotional excitement and the presence of moral sentiments. However, modern criticism is inclined to reject the term 'didactic', as it savours of the arts and graces of a school master, but in earlier times it was the easiest way in which information could be made more attractive resulting in the creation of firmer moral conviction. And since the poet performed the task of moving people more effectively to virtue, he was elevated above the moral philosopher or the historian.

Wordsworth's famous assertion that "every great poet is a Teacher: I wish either to be considered as a Teacher or as nothing,"[1] suggests in unequivocal terms the strong didactic tendency in him that found expression in a good many of his poems. He conceived of the poet's function as something serious and lofty. One of the reasons of this bias lies in the fact that educationally and culturally Wordsworth belonged to the tradition of 18th century England. He claimed that each of his poems " has a worthy purpose ......Habits of meditation have prompted and regulated my feelings, that my description....will be found to carry alongwith them a 'purpose'."[2] In one of his letters he pointed out the purpose of his writings: "There is scarcely one of my poems which does not aim to some moral sentiment, or to some general principle, or law of thought, or of our intellectual constitution......my writings will co-operate with the benign tendencies in human nature and society, wherever found, and that they will in their degree, be efficacious in making men wiser, better and happier."[3] He further asserted that the purpose of his poems was "to teach the young and the gracious of every age to see, to think, and to feel, and, therefore, to become more actively and securely virtuous."[1]

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[1] Wordsworth's letter to Sir George Beaumont, Jan-Feb., 1808, ed. by D Selin Court, Vol. I, Oxford, 1937, p. 170.

[2] Wordsworth: Preface to the Lyrical Ballads.

[3] Wordsworth's letter to Lady Beaumont, May 21, 1807, pp. 128-131.

Wordsworth's moral preoccupation earned him the severe ridicule and criticism of his contemporaries[2] as well as of many others who came later. He has been variously called 'Daddy Wordsworth', 'inspired clergyman', 'moral eunuch', etc. It is interesting to note that all these remarks refer mainly to the didactic propensity in him. Eliot maintains that a great poet should feel his thought. Taking this hint from Eliot, Herbert Read says of Wordsworth: "Wordsworth's poetry at its best is philosophical poetry, and belongs to that rare species of poetry in which 'thought is felt'."[3] Wordsworth did not always feel his thought. What he felt was often different from what he thought. In 'Tables Turned' he longs for 'one impulse from the vernal wood', which would replace all moral instruction; and in 'Ode to Duty' he dreams of the serene days when 'love' and 'joy' would reign supreme in the life of man. He ceases to think when he is most poetic: he simply perceives and feels.

The two elements—feeling and thought—do not blend but remain separate in Wordsworth's poetry. Eliot, unlike Read, does not think that Wordsworth felt his thought. He finds his didactic tone dull and exasperating. He speaks of the paralysing effect of the philosophical preoccupation on his genius. Even such a devoted admirer of Wordsworth as De Selincourt disapproves the deep-seated moral penchant of his poetry. He avers that "as a moraliser he was often tedious and occasionally absurd."[4] The 'purpose' of many a poem of Wordsworth's "is mere fiddle-de-dee."[5]

In the earliest phase Wordsworth's poems[6] show a strong moral tendency. It can be seen that the moralising tone of these poems is more or less the same as in Augustan poets like Pope and Johnson. The spirit is apparently ethical and this can be seen at a moment's glance. In the following lines, for instance, Wordsworth preaches the gospel of love, wisdom, and humanity which has a savour of didacticism:

---

[1] *Ibid*, p. 126.

[2] "A drowsy frowsy poem called the Excursion,
Write in a manner that's my sole aversion."

—Byron, Don Jaun, III.

"Poets who fix their visionary sight.
On sparrows' eggs in prospect of delight,
With fervent welcome greet the glow-worm's flame,
Put it to bed and bless it by its name;
Hunt waterfalls, that gallop down the hills,
And dance with dancing laughing deffodils,
Or measure muddy ponds from side to side
And find them three feet long and two feet wide."

—Rechard Mart (The Simpliciad, a parody).

[3] Herbert Read : Wordsworth, London : 1950, p. 119.

[4] De Selincourt: Six Great Poets, London, 1960, p. 92.

[5] *Ibid*, p. 116.

[6] School Exercises, Lines.........Yew-Tree, Female Vagrant, An Evening Walk, Descriptive Sketches, etc.

"O, be wiser thou:
Instructed that true knowledge leads to love,
True dignity abides with him alone
Who in the silent hour of inward thought,
Can still suspect, and still reserve himself
In loveliness of heart."
: Lines Written upon a Seat in a Yew-Tree.

It can clearly be seen that in the first phase his tone is moralising and most poems are written in a manner untouched by genuine passion.

In the second maturer phase a definite change in the moral tone of the poet is perceptible. The poems have something of what may be called romantic didaticism. But in many of these poems the survivals of neo-classical didacticism—passionless moralising—are still to be found. 'Goody Blake and Harry Gill' shows traces of neo-classical didacticism. Bateson says that "it is above all the ethical implications of the poem that relate it to the Augustan tradition"[1] In Anecdote for Fathers' the moral purpose of the poet is apparent; he is out to teach a moral. 'Expostulation and Reply' and 'Tables Turned' speak of the confirmed didactic attitude of Wordsworth. There is so much of moralisation in the poem that Byron ridiculed it by paradying it. Wordsworth was one, he says,

"Who warns his friend to shake off toil and trouble,
And quit his books, for fear of growing double."
—English Bards and Scotch Reviewers.

Wordsworth believed that moral lessons could be drawn even from the insentient objects of Nature. Raleigh humorously points out that if moral lessons can be learnt from natural objects, where is the necessity of reading Wordsworth's poetry? However, an identical view has been expressed earlier by Pope with the difference that Wordsworth refers to 'impulse', while Pope talks of the crude natural world of birds, beasts, and plants:

"Thus then to the Man the Voice of Nature spake.
"Go! from the Creatures thy instructions take:
Learn from the birds what food the thickets yield;
Learn from the beasts the physic of the field.
....
Here too all forms of union find
And hence let Reason, late, instruct mankind."
—Pope, An Essay on Man, Epistle III.

---

[1] F. W. Bateson: Wordsworth: A Reinterpretation, London, 1956 p. 19.

Wordsworth believed that Nature exerted a chastening influence of man's life which results in acts of kindness and love. Pope also thought that Nature. was something pure and holy:

> "The State of Nature was the reign of God."
> —An Essay on Man, Epistle III.

Strange as it may appear, Wordsworth seems to echo Pope in many of his statements about Nature. This was because of their common didactic bias. When Wordsworth does not 'feel' Nature, his 'thought' leads him back to the 18th century particularly in its ethical aspect. If Nature is the fountainhead of man's moral being for Wordsworth, alienation from Nature results in immoral acts for Pope:

> "Who, foe to Nature, hears the general groan,
> Murders their species, and betrays his own."
> —An Essay on Man, Epistle III.

Old didacticism expresses itself in new poetic forms as in 'Peter Bell'. The miraculous conversion of Peter Bell is illustrative of the poet's moral sentimentalism which urges him to ask the ass:

> "When shall I be as good as thou,
> Oh !' would, poor heart, that I had none
> A heart but half as good as thine.".

The moralising tendency of the poet is noticeable in poems like 'Ruth,' 'Ode to Duty,' the 'Prelude'. In 'Song at the Feast of Brongham Castle' the poet reverts to the didactic tone of the 'Tables Turned'. The pose of a preacher is equally pronounced. The poet endeavours to show that Nature's wholesome influence was so deep on Gifford that by leading a humble life he was tamed, soothed, and softened:

> "Love had he found in huts where poor man lie,
> His daily teachers have been woods and rills,
> The silence that is in the starry sky,
> The sleep that is among the lonely hills."

However, in the creative phase of Wordsworth's development as a poet didacticism appears as a baneful influence often cramping his genius and leading him on a false scent to passionless versification. Yet in many poems he is able to rise above this passionlessness and make even his moral tone look inspired and emotionally exciting. Wordsworth shows a tendency to be dull and flat in his moralising as well as a capacity to make his message inspiring. We may say that both types of didacticism—the romantic and the neo-classical—are found in this phase.

In the sunset phase of Wordsworth's development the didactic vein became most pronounced. The abstract didactic tone of the first phase which had been flowing as an undercurrent in the romantic phase, come to the surface again. Now the moral bias got strengthened and became more varied. Consequently the poetry of this period tended to assume an all-pervading moral tone, marked by his firm faith in conventional religion and morality. Wordsworth came to maintain that "in the middle and declining age, a scattered number of serious persons resort to poetry, as to religion, for a protection against the pressure of trivial employments, and as a consolation for the afflictions of life."[1] The poet in Wordsworth was dying and the didactic propensity was ever on the increase. The baneful effect of his didactic bias can be seen in the uninspired poetical baggage of this period. The Sage of the Rydal Mount turned to deliver moral sermons which show that the moralist had got better of the poet in him.

Leslie Stephen has shown "how the narrow limits of Wordsworth's powers are connected with certain moral defects; with the want of quick sympathy which shows itself in his dramatic feebleness, and the austerity of character which caused him to lose his special gifts too early and become a rather commonplace defender of conservatism."[2] David Ferry has described the changes that occurred in the poetry of Wordsworth: "The symptoms of it are plain too: flat and moralistic......a tendency to increase garrulity: a soberly cheery optimism about the relations of man and nature, man and God, combined with a sort of peevishness against rail-roads and a zeal for capital punishment."[3]

'The Excursion' is the most ambitious moral poem of this phase. It shows that the inspiration of the poet is on the wane and the didactic tone on the increase. Wordsworth strung together a series of incidents he met with in his pilgrimage and set them so as to hang his moral on. The poet has clothed the story in an atmosphere of sermonising through the idealised characters of the Wanderer, the Solitary, and the Vicar. In the Preface he proposed to sing :

"Of Truth, of Grandeur, Beauty, Love and Hope,

And Melancholy Fear subdued by faith;

Of blessed consolations in distress;

Of moral strength, and intellectual power; ......"

About didactic purpose of the Excursion there can be hardly any doubt. There are "lengthy passages in sermonic dialogue—form, heavily didactic."[4] An atmosphere of moral sentimentalism pervades the whole poem:

"....hence the more we require.
The discipline of virtue; order else
Cannot subsist, nor confidence, nor plea ...

---

[1] Wordsworth: Essay, Supplementary to the Preface of 1815.

[2] Leslie Stephen: Hours in a Library, Vol. II, London, 1899, p. 307.

[3] David Ferry: The Limits of Immortality, Middle Town, 1959, p. 172.

[4] G.W. Knight: The Starlit Dome, London, 1941, p. 49.

......equally require
That the whole people should be taught and trained."
—The Excursion, IX.

One cannot agree with the opinion of Myers that "the Excursion has the drawbacks of a didactic poem as compared with lyrical poems; but judged as a didactic poem, it has the advantage of true and permanent value."[1] It is one of the very dull and prosaic poems and much of it is barren and colourless. Similarly, in poems like Ecclesiastical Sonnets' the moral tone of the poet is quite pronounced.

Thus, it can be concluded that the level of poetry from the lyrical to the didactic Wordsworth drifted away from the life of impulses which was his main source of inspiration. As a consequence, his poetry became subservient to a strong moral purpose. poems judged as didactic poems may have some value but considered as works of literary art they have only secondary importance. Wordsworth's greatness as a poet does not consist in having written a large body of didactic poems. The didactic attitude was rather the undoing of his poetry.

F.W.H. Myers: Wordsworth, London, 1935, p. 91.

Agra University Journal of Research (Letters),
Vol. XVIII, Part I, January, 1970.
Pages 99-102

TEACHERS' EXPECTANCIES EFFECT ON I.Q. OF STUDENTS

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Purpose of the Study

Rosenthal, R. (1966) stated that there are possible changes in the I.Q. of the students when teachers' are biased in respect to imparting of instructions to their students. To test this statement this study was conducted.

Hypotheses

1. There is a significant gain in the I.Q. points of the students who have been appreciated by the teacher in the class-room.
2. There is a significant loss in the I.Q. points of the students who have been depreciated by the teacher in the class-room.
3. There is hardly a significant difference in I.Q. points of the students who were treated in the usual manner by the teacher in the class-room.

Sample

For this study, thirty students from three different sections of class IX science were selected. These students were taught by the same science teacher. Ten students from each section were taken for investigating each hypothesis of the present study.

Final selection of the sample was made through randum-non-probability ampling technique. All the students and the teacher belong to the male sex.

Design of the Study

There were two parts of the study. In the first part, all the three groups of students were given S. Jalota's General Mental Ability Test and the I.Q.'s were obtained.

In the second part of the study the following methods were adopted.

Group A was appreciated by the teacher.

Group B was depreciated by the teacher.

And the third Group C was *neither* appreciated *nor* depreciated by the teacher in the class-room.

---

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The last Group C served as the control group.

At the close of the academic session the same S. Jalota's General Mental Ability Test was administered on the same group of students.

STATISTICAL TREATMENT OF THE DATA

To find out the significant differences in the two scores before and after applying the independent variable, the method of analysis of Covariance was used.

The summary of the analysis of Covariance is given in table 1.

TABLE 1

F	df	Significance	Remarks
Fx=·01	2/27	Insig.	F at ·05=3·35 F at ·01=5·49
Fy=·0004	2/27	Insig.	F at ·05=3·35 F at ·01=5·49
Fy.x=·0003	2/26	Insig.	F at ·05=3·37 F at ·01=5·53

The summary of Mx, My and My.x values for all the three groups of the study are shown in table 2.

TABLE 2

Calculations of Adjusted Y means.

Groups	N	Mx	My	My.x (adjusted)
A	10	92·4	95·6	95·6
B	10	93·0	89·3	89·3
C	10	93·9	94·1	84·09
General means		93·1	93·30	

DISCUSSION

From table 1 the value of Fx=·01 which explains that the X-means did not differ significantly proving that the investigator was successful in having random-samples for three groups. Fy=·0004 which is also not significant at 5% level of significance. By this the author concludes that *neither* depriciation *nor* appreciation is more effective in raising the scores than was mere repetition of the test. Thus rejecting the first and the second hypotheses.

The value of analysis of Covariance became apperent when the F-test was applied to the adjusted 'among' and 'within' variables, Fy.x = ·0003 and was highly insignificant at 5% level. The value of Fy.x was then compared with the value of obtained Fy before correcting for variability in initial X-scores. It is clear from the value of Fy.x that the three final means which depended upon the three incentives differ insignificantly.

The author applied the T-test.

The value of Vy.x (Covariance) was 289400·9 as compared with the $\frac{1}{2}$ of 278682·0 and the SDv.x is 538. The value of SE$_D$ (standard error of difference) between any two adjusted means was 2406·0 for df=26, t is equal to 2·06 at 5% level and 2·78 at 1% level.

CONCLUSION

Substituting for *t* ·05 and SE$_D$, the author found that there was no significant difference in any of the means of the obtained final scores, thereby proving third hypothesis and rejecting both the first and the second hypothesis. Thus the author concluded that when initial differences allowed for, appreciation and depreciation makes for no significant changes in the final scores and that the control group has no greater effect than was mere repetition of the test.

Finally the investigator discovered that the maximum gain in the I.Q. points was 5 whereas loss in I.Q. points was of 7.

This seems to indicate that the expectancy on the part of the teacher is more effective on the negative side than on the positive one.

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Vol. XVIII, Part II *LETTERS* July, 1970

Abbr.—*Agra Univ. J. Res. (Letters)*

PUBLISHED BY
**THE REGISTRAR, AGRA UNIVERSITY,
AGRA, 1971.**

Annual Subscription : Inland Rs. 12/- ; Foreign Rs. 15/-

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Agra University Journal of Research (Letters),
Vol. XVIII, Pt. II, July, 1970.

Pages 1-10

CURRENT TRENDS AND PROSPECTS OF AGRICULTURAL DEVELOPMENT IN INDIA

B. SAHAI

ECONOMIC BACKGROUND

India's estimated population at present is 524 million. The geographical area of the country is about 326·8 million hectares of which net sown area is about 136 million hectares (or 45 per cent of the total). The scope for bringing new land under cultivation at economic cost is very limited except in areas newly brought under irrigation. About one-fifth of the cultivated area has irrigation facilities. Foodgrains cover about three-quarters of the total cropped area, followed by oilseeds covering 8-9 per cent, cotton nearly 5 per cent, and sugarcane, jute, spices and other crops accounting for the rest. According to the 1951 population census, out of 139·5 million workers, as many as 97·3 million or 69·7 per cent were classified as agricultural workers including cultivators and agricultural labourers. The average size of operational holdings is about 2·63 hectares. Among the operational holdings, 61·7 per cent are below the size of 2·02 hectares. The contribution of agriculture to total national income in 1969-70 was estimated at 47·5 per cent at current prices.

PRODUCTION STRATEGY AND RATE OF GROWTH

For centuries, agriculture has developed as a way of living in India. Commercial agriculture has made advances since the last quarter of the 19th century. Cotton, jute, oilseeds and sugarcane (besides tea plantations and spices) have been the main cash crops produced by cultivators almost entirely for the market.

Production technology has been characterized by a predominance of human and animal labour as a source of power for farm operations; production of seed requirements on the farm itself; use of plough and other implements either made on the farm from local wood materials or made by local artisans; use of cow dung and farm wastes as manures; construction of surface wells, tanks for storing rain water or diversionary bunds on streams, etc.

Direct Government interest in the promotion of agricultural development started with the undertaking of the *Grow More Food Compaign* in 1943. The Central Government gave subsidies and loans to the State for development of irrigation for land reclamation, plant protection measures, supplies of improved seeds and compost development, etc. From the inception of the First Five Year Plan in 1951-52, programmes of agricultural development were undertaken on a much more comprehensive and integrated basis. The main aspects of this approach were:

(i) Intensification of traditional measures for increased production viz. extension of irrigation facilities through major irrigation projects and minor irrigation schemes, arrangements for supplies of improved seeds on a large scale, encouragement to measures for utilisation of rural and urban compost, spread of green manuring practices, reclamation of available waste lands and adoption of better production techniques and plant protection measures.

(ii) Starting of a National Extension and Community Development programme intended, inter alia, to take to the farmers the available knowledge about improved agriculture including the use of chemical fertilizers.

(iii) Undertaking of land reform measures with a view to improving the status of the tillers of land and ensuring them better returns.

(iv) Development of institutions like cooperatives to increase the supply of credit and to undertake marketing etc.

During the fifteen years of the first three Five Year Plans, the above approach with some variations in emphasis was, by and large, continued.

Public sector outlay for agricultural development under the successive Plans have been progressively stepped up as shown below in table 1.

TABLE 1

Plan Outlays for Programmes Bearing on Agricultural Production (*Rs. million*)

	First Plan 1951-56	Second Plan 1956-61	Third Plan 1961-66
1. Agricultural production	1,769	970	2,030
2. Minor irrigation	...	950	2,690
3. Soil conservation	110	180	780
Total	1,870	2,100	5,500
4. Community development and cooperation.	840	2,530	3,680
5. Major irrigation and flood control	4,340	4,200	6,570

Source—Asian Development Bank.

Significant progress was made in the implementation of the various physical development programmes and in the use of inputs. A brief idea of the progress achieved in respect of important programmes is given in the following table 2.

TABLE 2

Achievements under Agricultural Development Programmes during the First, Second, and Third Five Year Plans.

Programme	Unit	First Plan 1951-52 to 1955-56	Second Plan 1956-57 to 1960-61	Third Plan 1961-62 to 1965-66
1. Major and medium irrigation (gross)—Additional area benefited.	m. hectares	1·3(a)	2·2(b)	2.2(c)
2. Minor irrigation (gross)—Additional area benefited.	,,	3·8(a)	3·6(b)	5·3(c)
3. Soil conservation on agricultural lands—additional area benefited.	,,	0·3(a)	1·0(b)	4·0(c)
4. Dry farming—additional area benefited.	,,	...	...	6·8(c)
5. Land reclamation and development—additional area benefited.	,,	1·1(a)	0·5(b)	1·7(c)
6. Improved seeds of foodgrains	,,	1.9	19·8	48·6
7. Consumption of chemical fertilizers.	(thousand tons)	137	308	784
8. Urban compost	m. tones	2·2	2·4	3·4
9. Rural compost	,,	...	67	123·6
10. Green manuring	m. hectares	...	4·5	8·7
11. Plant protection	,,	...	6·5	16·6

(a) Over 1950-51. (b) Over 1955-56. (c) Over 1960-61.
Source : Progress report of Five Year Plans

The development efforts made under the Plans produced a significant impact on Indian agriculture. The growth rate in this sector has shown a marked improvement over the "performance in the preceding decades when the agricultural output grew by less than half per cent per annum". The compound rate of growth of agricultural production between 1949-50 (base year for the First Plan) and 1964-65 (fourth year of the Third Plan) was 3·2 per cent for all agricultural commodities including 3·0 per cent for foodgrains and 3·6 per cent for crops other than foodgrains. An analysis of the data on cropped area, production and productivity, however, indicates that during the first half of this period, viz. 1951-52 to 1957-58, the increase in the cropped area accounted for a major proportion of the growth in production while in the later half the contribution of productivity was higher and that of increased cropped area was lower.

Since the rate of growth in agricultural production during the Third Plan period lagged behind the Plan targets, considerable effort was made by the Government to bring about a better administrative coordination between the departments concerned with agriculture, irrigation, cooperation and other allied subjects. The implementation of agricultural programmes in the States and the institutional and organizational problems faced were examined closely. An attempt was also made to see whether a new technology which could enthuse the farmer and bring dynamism to the agricultural economy could be found. Fortunately the following developments seemed to indicate a new approach:

(a) Our agricultural scientists, who had been struggling to produce hybrid varieties of maize in India since 1959-60, succeeded in their efforts by about the end of the Third Plan. Development of hybrids and other millets suitable for cultivation over large areas also appeared possible.

(b) Our scientists also experimented with the cultivation of dwarf Mexican varieties of wheat and found that these varieties could absorb large dose of fertilizer and give substantially higher yields as compared to the traditional indigenous varieties of wheat and rice.

(c) The package programme approach involving simultaneous use of scarce inputs like fertilizers, pesticides and improved seeds in assued irrigation/rainfall areas possessing high potential for increased yields, which was tried during the Third Plan in the sixteen Intensive Agricultural District Programme (IADP) districts, had given good results and suggested a further extension of this approach.

(d) As a result of extension efforts and demonstrations regarding use of new inputs and improved cultural practices on the farmers' fields, the resistance of farmers to the use of the new inputs had been broken and they seemed to be prepared to try them where their usefulness was clearly established.

Against the above background, a "New Strategy for Agricultural Development" was evolved. Two important programmes for increasing foodgrain production under this New Strategy were:

(i) Applying a package of practices, comprising water management, high-yielding varieties of seeds, pest control and a sufficiency of fertilizer application, along with good cultural practices to an area of 13·2 million hectares (32·5 million acres) in 1970-71.

(ii) Introducing short-term varieties of major cereals which yield as well as the long-term varieties under a suitable package of practices thus allowing for the growing of a major second crop in the irrigated areas of the country where previously only one crop was being grown under irrigated conditions.

Other plans of the New Strategy for Agricultural Development included adoption of plant protection measures over large areas, close attention to the problems of soil and water management, soil analysis, linking up of fertilizer requirements with soil conditions and cropping patterns and development of groundwater resources at the same time as major irrigation projects.

The New Strategy has been operating since 1966-67. The year 1966-67, like the preceding year 1965-66, was characterised by widespread drought in large parts of the country. As a result, the impact of the new strategy in the first year was not particularly noticeable. The index of overall production (base level 1949-50=100), which had risen to 158·5 in 1964-65, came down to 132·7 in 1965-66 and 132·0 in 1966-67. In 1967-68, however, weather conditions were generally favourable and the impact of the new strategy was reflected in the record level of production. The production of foodgrains increased to the level of 95·6 million tonnes which was 21·4 million tonnes higher than the previous year's level. It also exceeded the previous record level production of 89 million tonnes achieved in 1964-65 by a margin of 6·6 million tonnes. Most of the commercial crops also showed impressive increases. The index of overall agricultural production in 1967-68 rose to 161·8 as compared to the previous highest level of 158·5 in 1964-65. A particularly notable and encouraging factor has been India's achievement of a virtual 'Wheat Revolution'. The production of wheat in 1967-68 was 16·6 million tonnes as compared to an average annual production of 11·0 million tonnes for the previous five years and the previous highest production of 12·3 million tonnes. Record production in millets also gave an indication of a breakthrough in these crops.

In 1968-69 and 1969-70, rainfall has been erratic and ill-distributed. The crops in Andhra Pradesh, Gujerat, Rajasthan and Haryana States have been adversely affected due to inadequate or scanty rain. In spite of this, however, India is expecting foodgrain production in the current year to be around the record level achieved in 1967-68. This will be largely due to the cultivation of high-yielding varieties and adoption of other intensive cultivation programmes. Thus, there is a feeling of hope and confidence that the new strategy will help to remove the severe fluctuations in foodgrain production that come in the wake of failure of the rains.

Significant developments are taking place in respect of the use of modern inputs and the adoption of more efficient techniques of agricultural production. The figures given in table 3 give a brief idea of the momentum of developments in this regard.

TABLE 3

Programme	Level of Achievement			
	Unit	1966–67	1967–68	1968–69
1. Cultivation of high-yielding varieties.	Million hectares	...	6·1	8·5
2. Multiple croping	,,	...	3·6	6·1
3. Use of chemical fertilizers	thousand tonnes of nutrients	784	1,540	1,980
4. Installation of diesel and electric pumpsets for irrigation	thousands	980	1,420	1,670
5. Private tubewells	,,	113	195	271
6. Plant protection (gross area benefited)	million hectares	16·6	36·4	54·6
7. Use of tractors	thousands	54	80	90

Source—Asian Development Bank.

Various minor irrigation schemes have provided the benefit of irrigation to an additional area of 4·2 million hectares (10·4 million acres) in the three years ending 1968-69. In the same period, major irrigation projects are expected to benefit about 4 million hectares (9·9 million acres).

In brief, programmes of agricultural development have been greatly accelerated in the last three years. Judging from the actual use as well as the demand for fertilizers, power connections for tubewells and pumpsets and increasing use of tractors and other agricultural machinery and equipment, it seems that increasing numbers of Indian farmers are taking to the new production technology.

INCENTIVES

Generally, during the first three plans, subsidies and loans were used to induce farmers to undertake investment in minor irrigation schemes and soil conservation, to use new inputs like fertilizers, pesticides and plant protection equipment, to extend cultivation of marginal lands and to intensify their use of traditional inputs like local manurial resources (including green manuring). To a certain extent, long-term loans were also given for purchase of tractors, installation of tubewells, etc. Since the adoption of the New Strategy, the policy on subsidies has been changed. Subsidies on fertilizers, pesticides and other inputs have been tapered off and, by now, have been mostly withdrawn completely. For the future, subsidies are being allowed only to a limited extent for small farmers, backward classes and for cultivators in hilly or inaccessible areas.

With regard to price policy, however, an Agricultural Prices Commission was set up in 1965 to advise the Central Government on price policy for various agricultural commodities on a continuing basis. It is recognized by the Government that appropriate price policies are of special importance in the context of programmes involving large investments in modernised and progressive agriculture. Minimum prices have been fixed for the main foodgrains and important commercial crops as a safeguard against a steep fall in their prices following increased production. In addition, in the case of foodgrains, the Government fixes procurement prices which are higher than the minimum prices. In the context of substantial increases in the production of wheat and certain other cereals, the Government has undertaken to purchase all quantities offered by producers at prescribed procurement prices mainly through the Food Corporation of India. This policy has given considerable confidence to the cultivators and during 1968-69 larger areas have come under wheat. Generally, the Government is continuing to give price incentives and is supporting this policy with measures for purchasing agricultural produce.

INSTITUTIONAL SUPPORT

(a) *Credit*—Consistent efforts have been made by the Government to increase the supply of institutional credit. In 1950-51, cooperative institutions supplied 3·1 per cent of agricultural credit, while the Government contributed 3·3 per cent. Remaining credit for agriculture came from private money-lenders, traders, relatives, etc. By 1965-66, the share of cooperative and Government credit (mainly cooperative) had increased to about 25 per cent of the total supply of agricultural credit. Recently, various significant developments have taken place in the matter of broad-basing and diversifying the institutional structure for supply of agricultural credit. The amount of short-term and long-term credit advanced by cooperative 1968-69 and it is expected to reach Rs. 5450 million in 1969-70. Cooperative institutions are being supported by the Central and State Governments, the Reserve Bank of India, the Life Insurance Corporation, the State Bank and other commercial banks. Since 1967-68, commercial banks have started taking an interest in financing agricultural production programmes. In 1968-69, their contribution has been about Rs. 400 million. The Agricultural Refinance Corporation established by the Government is giving valuable and increasing support to cooperative institutions for financing programmes of irrigation and land development in compact areas. A National Credit Council has been set up by the Government which will ensure that a reasonable share of commercial bank credit becomes available for agricultural investment.

(b) *Agricultural Research and Education*—Measures to strengthen agricultural research and education have been consistently stepped up under successive Plans. Nine Agricultural Universities combining agricultural research, extension and education have been established. Since the adoption of the New Strategy in 1966-67, agricultural research has been greatly strengthened and reorganized. The Indian Council of Agricultural Research has been made responsible for coordinating all programmes of research in agriculture and allied fields all over the country. Coordinated research projects for the principal commodities have been undertaken. Stress is being laid on adaptive research and measures are being taken to establish two-way communication between research institutes and the farmers. The latest scientific advances are to be passed on to farmers for practical application while the difficulties and problems faced by the farmers in their fields are to be referred back to the research institutions so that practical solutions may be found.

(c) *Agro Industries Corporations*—In recent years, the use of tractors has gained momentum. The number of tractors in use increased from 54,000 in 1965-66 to about 90,000 by the end of 1969-70. Power tillers are also being found very useful. Demand for new types of agricultural machinery and equipment, including crawler tractors, harvesters and power threshers is on the increase. Agro Industries Corporations have been established in thirteen States. Practically all these Corporations undertake hire purchase of agricultural machinery and equipment and take other measures such as provision of repair, servicing and training facilities and promotion of agro industries.

(d) *Land Reform*—To provide an incentive to tillers of the soil, several land reform measures have been taken. Intermediary tenures, which were prevalent over about 40 per cent of the cultivated area, have been abolished all over the country. Nearly 20 million cultivators have come into a direct relationship with the State and have become owners of their holdings. Legislation has been enacted to provide security of tenure, regulation of rents and provision of other safeguards and benefits to tenants. About three million tenants and share croppers have obtained ownership rights over more than 3·1 million hectares. In a number of States, measures have been taken to implement legislation on ceilings on holdings. Under this legislation, nearly one million hectares have been acquired of which half have been distributed. Operations for consolidation of holdings have been completed in the Punjab and Haryana States, while considerable progress in this regard has been made in Madhya Pradesh, Uttar Pradesh and Maharashtra.

(e) *Other Infra-Structural Aspects*—Several measures have been taken to bring about improvements in the fields of agricultural marketing, warehousing and transport of agricultural commodities. Regulated markets for agricultural commodities are being developed with Government help. Such markets are expected to have developed market yards, amenities for producers for the sale of their products, facilities for parking, water supply and other essential amenities. The number of regulated markets is about 1880. About 1500 markets and sub-market yards are yet to be brought under regulation. Central and State Warehousing Corporations have been constituted to develop warehousing facilities for agricultural commodities and inputs. The Food Department of the Central Government and, more recently, the Food Corporation of India and the

State Governments have built modern warehousing accommodation for about 4·9 million tonnes of foodgrain. In addition to this, the Food Department and F.C.I. also utilize accommodation hired from private parties. Cooperative institutions have also developed storage capacity equivalent to about 2·6 million tonnes mainly for the storage of agricultural inputs and agricultural commodities.

MAIN PROBLEMS FACED

1. An important problem being faced in relation to the latest production technology is that of providing substantial research support. Already India is taking advantage of the research efforts carried out in various countries and research institutions like the International Rice Research Institute. The help of organizations like the Food Foundation and the Rockefeller Foundation in collecting genetic material has also been welcomed. During 1968-69, India, herself, also exported small quantities of seeds of high-yielding varieties to other countries. It is hoped that the scope for international cooperation will be further extended in the coming years. More particularly, there might be a need for sophisticated equipment from abroad to carry out research into the new and complex problems that go hand in hand with the improved production techniques employed in the cultivation of hybrids and other high-yielding varieties of crops. In the case of high-yielding varieties of paddy, there have been some problems of consumer resistance to the existing new varieties. Our agricultural scientists are making efforts to develop varieties suited to our soil/climate conditions and possessing characteristics which might make them more acceptable to consumers. Similarly, agricultural scientists are being asked to develop high-yielding varieties of pulses, oilseeds, cotton and jute, so that it will be possible to obtain increased productivity in these crops to cope with rising demand. International cooperation in tackling these problems would be very helpful.

2. It is being increasingly realized that soil and water management is extremely important in reaping the benefits of the new technology. Available knowledge of water requirements of crops, timing for irrigation, appropriate water management and water-use practices and the appropriate fertilizer mixtures required for various cropping patterns is very limited. It is possible that other countries like Japan, which has raised the productivity of its land to very high levels, may be able to provide technical guidance as well as the equipment, etc. necessary for projects relating to water and soil management.

3. A close analysis of the production efforts that have been made in the past reveals that best results in terms of overall agricultural practices can be achieved through area development programmes. There are large areas coming within the command of new irrigation projects. Only some parts of these areas have been cultivated under dry conditions. Now with the arrival of this important input of water, a basis is available for developing modern intensive agriculture. It is felt that best results may be achieved if all the important problems of these areas, such as land levelling, land shaping, proper

layout of irrigation channels, supplies of agricultural inputs, credit, development of roads, markets and warehousing and processing facilities are taken up in planned and coordinated manner. Such work is needed over several millions of hectares. However, the resources for investment in agriculture which are available under the overall Plan of the country are limited. Since huge initial investments are required, it has not been found possible to make adequate provision in the Plan. Accordingly, only some pilot projects for developing proper cropping patterns for such areas and for the development of marketing facilities and rural roads are being taken up by the Central Government. It is envisaged that maximum support from institutional credit will be mobilized for area development programmes. Still, the resources from within the country are expected to touch only the fringe of the problem. Massive help in finance, inputs and equipment from abroad, especially for integrated area development programmes, can be an important factor in helping India achieve a general breakthrough in her agriculture.

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Agra University Journal of Research (Letters),
Vol. XVIII, Pt. II, July, 1970.
Pages 11-18

IMPROVED WHEAT AND CUSTOM

[INTRODUCTION OF IMPROVED WHEAT TO THE AUNGUTHI VILLAGE FARMERS UNDER BICHPURI BLOCK, (AGRA) UTTAR PRADESH]*

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THE PROBLEM

The practice of old wheat cultivation in the system of the Aunguthi village farmers is coming from generation and with the tradition as an important crop. As compared with Western Uttar Pradesh Farmers their yields are very low, and the quality of wheat is poor by any ordinary standard. The cultivation of improved variety wheat, i.e., Larmarajo has been brought into practice very recently by demonstration and guidance of extension agencies. In the Jat community recently, the department of Extension, the department of Botany and the department of Agricultural Economics of R.B.S. College, Bichpuri, combined with the extension workers of the village who were responsible in introducing improved wheat which gave about three times the yield of that grown traditionally. In 1964 the results of the new wheat were seen, a majority of growers (80 Jats out of the total 100 Jats) adopted this new wheat—Larmarajo (high yielding variety). In 1969, four years after the first introduction, however, nearly all of the farmers had ceased to plant the improved wheat and were again using the old wheat. Why did a seeming successful introduction not ensure the establishment of an improved seed? What factors had the extension agencies failed to take into consideration?

THE COURSE OF EVENTS

In 1963 the departments of R.B.S. College, Bichpuri, and extension workers of the Aunguthi village decided to experiment the cultivation of improved wheat for improving the wheat yield of the farmers of the selected village.

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* This case is drawn from a larger study by the Author: Linkage of Cooperative Credit with Farm Production and Marketing. The investigations upon which this case was based were carried out during 30.6.63 to 30.6.69, when the author was student in the Balwant Vidyapeeth Rural Higher Institute, Bichpuri (Agra), and became Assistant Professor of Rural Economics and Community Development there. The assistance of the farmers amongst whom the author lived during the survey is acknowledged with a deep sense of gratitude. The author is highly grateful to Mr. Anacleto Apodaca from whom he had borrowed the method of presentation of the original facts.

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They persuaded village leaders, socially influencial villagers and graduate students of the village agreed to allow them to present information concerning Larmarajo wheat. Due to cooperation of the village leaders discussions with farmers proved more successful than they hoped. In 1963, fortyfive out of the 100 farmers in the Jat community experimented by sowing small amounts of improved wheat and doubled the production per acre of the preceding year.

In 1964, there were 80 farmers who planted improved wheat. In 1965, there were 90 farmers who planted improved wheat. In 1966, all the Jats and some other farmers of the village planted this new wheat on a small scale and got production doubled. This was the year of abundant profunction of Larmarajo wheat and the problem was not of production but of its sale and its distribution to other villages. In other villages seed saturation programme was under practice. The farmers when facing the problem of sale drew their interests for it. They began to take other new varieties instead of it.

In 1967, however, although the high yield continued, only 40 farmers in the whole village planted the improved wheat. The other 60 farmers who had planted it year before went back to traditional or old variety.

In 1968, only 10 farmers planted improved wheat; the decline in number of farmers planting the Larmarajo wheat was greater. They were farmers whom the extension workers had long regarded as progressive ones. All the rest began to grow the old wheat, and the pace of spreading of planting Larmarajo wheat began to decline.

In 1969, the farmers also began to refuse the other improved varieties of wheat due to that experience. A group of 15 growers stated, 'High yielding variety wheat has become a problem for us at a high level. It is solving the problem of production, but is giving rise to the problem of sale and good health.'

RELEVANT FACTORS

Presently the Aunguthi village farmers are growing old wheat at large scale for their own consumption and not for the purpose of sale. They grow improved variety of wheat at small scale only for the purpose of sale. They consider it as a cash crop. They consider the old wheat as an important crop for personal consumption. The Aunguthi village women grind the old wheat with interest on stone slabs. There it is made into meal. From the meal they prepare bread that is called 'ROTI' which serves as a major item in their diet. When the crops are relatively abundant, wheat is fed to the livestock, specially for milk and draft cattle, and stalks are used as roughage.*

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* In this village wheat is grown as a main crop. Wheat, in the day of abundant production, is used as grain for the concentrate food of the animals. Usually wheat bran (wheat husk) is given to the animals. During the survey, some families of untouchables (Harijans) used wheat bran for Roti. Their food was poorer than the food of the animals of the rich people. See the difference between man and animal.

The old wheat prior to 1964 is a variety locally called "Swadeshi wheat". Now-a-days it is called "Deshi wheat". It attains medium height, producing a minimum roughage. Its grain are neither too big nor too small. Its average yield is 14 quintals per acre and farmers save their own seed every year, mostly without selection. The wheat is sown between 25th November to 15th December every year in this village. The wheat is irrigated two times atleast and is harvested between 29th March to 29th April every year.

The relationship between the farmers and the extension workers was good and complementary in nature. The extension workers spoke in the local language—*Brijbhasha* and used to have familiar feelings with the farmers. They used to go to the festivals and ceremonies of the farmers. They used to go to the festivals and ceremonies of the farmers not only to win and influence them, but also to show themselves as true and sincere workers. The old wheat seed, they felt, and degenerated and they suspected that this was an important factor in keeping production low. They decided to introduce an improved variety of wheat that was known as most high yielding and proceeded carefully, consulting famous Agronomists, Plant Pathologists and Entomologists, who selected a variety 'Larmarajo' that had been tested for the immediate area. It was considered disease-resistant and capable of producing good yield, averaging 20 quintals to 28 quintals per acre.

The extension workers discussed the problem of low yields of wheat with the village leaders, caste leaders and socially influencial farmers, having chosen this particular community as a likely one for good response. In this context one seminar was organized at Balwant Vidyapeeth Rural Higher Institute, Bichpuri (Agra) at the cost of National Productivity Council, Agra Branch, Agra.

The soils of the fields used by the farmers were tested by the department of soil Chemistry, R.B.S. College, Bichpuri and found to be of good fertility. Since here, in contrast to other villages, it had been customary to use manure yearly. After discussions with the farmers, leaders and village level extension workers on the various problems involved, a meeting was called in order to present the extension workers plan.

The meeting was held in the lecture room of Balwant Vidyapeeth, Bichpuri and everyone in the village was invited. The extension workers showed movies of the improved wheat and cartoons to enliven the result demonstrations. The leaders and other villagers took over the meeting and expressed in their own words the plan for introducing improved wheat. All those present seemed to agree that the new seed was the answer to many of their problems and that they would be well able to afford the price of the improved seed of wheat, once it was available locally.

By special arrangements with a grower of seed (Shri Samudra Singh Jat), the improved wheat was furnished in exchange for the other crop seeds. A demonstration plot which clearly showed a tripled crop was set up at Village Level Worker's Training Centre, Bichpuri near the village and due to its attractive results 45 farmers sowed improved wheat and each doubled their production in the first year.

The whole procedure seemed to have been soundly based and to have got unusually rapid results. There was confirmation of this, when, in the following year, the extension workers were able to report that 80 farmers, more than three-fourth of all the growers in the selected community, had accepted the new seed. The seed was producing admirably, it was within their means and seemed a most profitable innovation.

THE OUTCOME

In 1968, nearly all the farmers had gone back to grow 'old Wheat' and revealed the reasons for their rejecting the improved wheat. The feeling of need for better yields was still strongly present. No one complained of lack of market for surpluses, which the extension workers had feared might be a factor. The seed was easily available. There was good marketing facility. No one had particularly difficulty in producing the new crop. All those who had grown it were still impressed with the high yields, and some said it confirmed their belief that their own seed had become weakened through its use. In increasing production, there was no longer difficulty for the farmers.

Gradually the extension agencies collected responses to direct unstructured questions as to why those who had grown improved wheat had not continued to grow it. The answer was simple and direct. Three cultivators stated, "We do not like this improved wheat; that's all." Five farmers expressed, "Our wives rebuke us and oppose the growth of this new wheat. They dislike that wheat." A group of ten farmers narrated that the new wheat had not been popular from the first harvest. All the wives and other females had complained because they were using it for consumption purposes. Some disliked its texture due to too much binding capacity of its flour at the time of ROTI (bread) preparation. It was different to the one they were accustomed. Few disliked its flavour and taste. Few stated that it created digestion-troubles. But the farmers who persisted in growing it after the first year had hoped that they would get used to it for maximum profit in the day of scarcity of production. In the day of abundant production it was used to feed the milch cattle and the farmers were reluctant to drop it for that reason. There were five continuous growers who after four years experience, with their peculiar gesture stated, "We have not become accustomed to the digestion-cum-gassious trouble." There were nine farmers who stated, "Our wives prepared bread of old wheat for themselves and bread of new wheat for us as a matter of indirect punishment. When we ask for a piece of old wheat's bread from our wives as a special bread they take interest in not giving to us." One farmer stated that his wife used to say, "Grow more new wheat and eat new bread of new wheat.

Your hybrid wheat is a high breed in production but not a high breed of wheat for high taste of bread."

There were three families who stated, "Improved variety of wheat is good in production only. It does not give good effect on our health. When we eat its bread we fall ill, when we begin to eat old wheat we get relief over it. Our old wheat works as a remedy in that time. We think that improved wheat gives high yield due to use of particular fertilizers which increases the particular element in wheat structure and that chemical finishes the other needful elements which are necessary for the good health. Therefore, for the purpose of sale we grow new wheat at small scale or large scale as the demand permits and for our consumption we grow deshi or old wheat. Improved wheat needs more cost of production than that of old wheat. At present the market price of new wheat—Larmarajo—is lower than that of old wheat because it is going off from the people's consumption.* People have begun to use it for animals. Our extension officers used to ask the bread of old wheat instead of new wheat." Four farmers stated, "We do not use it for the PUJA of God and Goddess because we believe that it may harm our God's relationship. This new wheat is as harmful as our enemy." In my opinion this sort of complaint is a specialized one in nature at present, but it may be normalized after a long time because this type of complaint was found in the beginning of imported wheat. Now people make queue for ration in the demand of that imported wheat—American and Australian Wheat.

One farmer stated, "After four years continuous cultivation (by crop-rotation system) we have found that new wheat absorbs more fertility of the soil than old wheat and it invites varrenity for the soil. Every crop taken after its harvest is low in yield after maximum care and treatments. It increases illness in human health as well as in the good soil." The effect of improved wheat on soil is under study of the department of soil chemistry, R.B.S. College, Bichpuri, Agra, U.P.

ANALYSIS

This was taken as a careful procedure of the Agricultural extension agencies in the best way of increasing production. The extension agencies moved slowly and carefully after a considerable period of observation and analysis of the specific local situation. They examined all the technical aspects, soil conditions and existing practices. They studied the real felt-needs of farmers. They found that the farmers had a felt need for new wheat and they became able to introduce farmers to formulate that need among themselves. They utilising local leadership, local administrative persons, e.g., village Pradhan started their work after thorough understanding of the people. What was to be done; they demonstrated procedure by result demonstration method. It cannot be said that they ignored any of the well tried, and often reiterated, rules of extension procedure.

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* During the survey people liked to consmue course grains but they did not like to eat wheat—Larmarajo.

No doubt the extension agencies tried their best in exploring the causes of failure in the context of the change and went far enough. They paid attention to the relation between agro-technology and other conditions and to those between farming practices and socio-economic organizations of the community. But they did not pay enough attention to inquiring into the food habits and their influences on the cropping pattern. Though they took food in several invitations of the farmers. Yet they failed to enquire into the food habits and their influences on the cropping pattern. By experiments, experiences and by the statements of farmers, as it were, they found that food habits could not be ignored. It was learned that the interests and wishes of the village wives and other women had to be taken into consideration as an important factor in the village agricultural economy. Finally, they found that in the system of values of village community, wheat quality for consumption was more important than wheat quality and quantity for production.

The extension agents had proceeded on the belief that the increased wheat production was the only important factor involved. They had never gone into the uses of the crop, nor had they tested its place in a food prepared by the farmers in the usual manner.

They failed also to identify that customary courtesy of the people who were not used to correcting "extension workers" or to expressing themselves freely and frankly in their presence. The extension workers used to see the weakness of the farmers, but never tried to see the weakness in them. On reflection the extension workers realized that a group of the farmers had doubts about the introduction, but had not felt that they should discourage the extension worker's efforts.

One can say that a successful procedure would have included the following steps:

1. The selection of one improved variety of wheat and trial of several improved varieties of wheat.
2. The attention was paid more in testing of the improved wheat to see how it fitted into the culture patterns to enhance farm production.
3. The result demonstration continued to show the advantages of new wheat.
4. The direct approach and close contact with the farmers for the detection of their difficulties so as to make modifications in the needed plan, was a factor for the success.
5. The steps for attraction and economic gains of the farmers were taken immediately by extension workers according to local needs with local knowledge and local resources.

It may be said that by these means the taste problem might have been detected earlier and met through the use of a more suitable type of improved wheat. On the basis of farmers statements, expressions and given examples, one can conclude that the taste is a problem for new wheat, but is a solution in retaining the old wheat and some old methods in agriculture. In other words we can say that for modernization of wheat farming the pattern of consumption should also be taken into consideration with the production pattern of old wheat. The place of old wheat in consumption has direct relationship with the place of production. It shows that old wheat is a successful variety because it has been accepted after the experiments and experiences of the generations. It reflects that for the introduction of new crop consumption pattern, production. pattern, and effect of crop on the fertility (texture-structure) of soil should be taken into consideration. This study draws attention of Researchers for further study at a great length.

Agra University Journal of Research (Letters),
Vol. XVIII, Pt. II, July, 1970.
Pages 19-42

AN ESTIMATION OF PRODUCTION FUNCTION OF MAJOR INDUSTRIES OF INDIA

[AN EMPIRICAL STUDY]

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It is not expenditure alone that determines the cost of any product in an industry. The unit cost of any product is indirectly affected by marginal productivity of the factors and rates of return under which the industry is operating.

Rates of return measure the extent to which the installed capacity of an industry is being utilised. If, the installed capacity is not fully utilised additional doses of variable factors will result in a more than proportional increase in the production i.e. increasing return, on the other hand, if the installed capacity is being fully utilised, additional doses of variable factors will result in a less than proportional increase i.e. diminishing return. For example labour is a variable factor rather than a fixed factor. In industries operating under increasing return, any increase in the number of workers will enhance the marginal productivity of the labour and thereby reduce the average cost of labour per unit of product; in industries operating under diminishing return, any increase in the number of workers will decrease the marginal productivity of the labour and thus increase the average cost of labour per unit of product; similarly, in industries which are operating under constant return, any increase in the number of workers will not affect the marginal productivity of the labour and thus the unit cost of labour will remain unaffected.

Therefore, the factors which are not germane to the market conditions, also influence the unit cost of production. The connecting rod between the adjustment of the factors and an alteration in the industry's unit cost, is, of course, the technical relation between input and output. Until one has an idea of this relation, it is very difficult to ascertain the real impact of any change on total unit cost. In economic terminology, this technical relation is known as the Production Function of an industry. The present paper is an attempt at estimating the production functions in selected industries of India and is designed to provide an appraisal of the impact of returns and marginal productivity of unit cost of production in general and on unit labour cost in particular.

IMPORTANT ECONOMIC CONSIDERATION

The concept of production function can be formulated at different levels of aggregation—firm, industry, sector, and a whole national economy. The firm seems to be the least meaningful unit, as technological differences exist in individual firms. As we are generally interested in some statistical averages, an industry's aggregation is always better and has many attractive natural attributes.[1] When data are aggregated over different industries for an economy as a whole, the analysis automatically conceals differences which are peculiar to individual industries.[2]

Because of these limitations, particularly in India, where industrial structure is still amorphous, the aggregation used here is within one industry. "The Indian industrial structure is still rather amorphous. Economic planning has not yet been strong enough to permeate the whole industrial fabric so as to produce a regular, well-behaved pattern of industrial production. Amidst these amorphous production conditions, it is surmised that the use of firm level data would have shown still greater irregularities."[3]

Production function can be estimated either from the cross section samples or from the time-series data. Most of the studies on production function of Indian industries are based on cross section data.[4] The results of these studies present an over-all picture of the production coefficients, without bringing out either the firm differences or the industry-differences, for the simple-least-squares technique applied on cross-section data cannot make these differences explicit. The studies based on the cross-section data remove the influence of time factor, yet fail to reveal the changing pattern of the function over a period with a changing pattern of economic conditions. The problem of multicollinearity is also relatively high in the Cross-Section Sample. Therefore, in the present study, the production functions have been estimated from the time series data.

It is true that "temporal" studies often fail to render reliable estimates if the factor of 'time' is not eliminated. To overcome this difficulty, measures have been taken to remove the influence of the time factor. Moreover, the position is different in India, "it should, of course, be admitted that technological change—a factor of time—is brought into the industrial complex in India very slowly. This factor, as such, is of less significant in India than in any other industrial country.[1]

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[1] Cf. L. R. Klien: "An Introduction of Econometric" (Prentice-Hall INC) 1962, page 87.

[2] See for detailed study "Linear Aggregation of Economic Relation" (North Holand Publication Co.) 1964. (In this book the author has given the operational significance to the question of aggregation).

[3] A study of Production Function of Manufacturing Industries in India 1950-58"—A monograph by S. Bhattacharya, Jadavpur University page 4.

[4] *Ibid* and "Productivity of Capital Investment in U.P."—J. Tiwari (Bulletin of International Statistical Institute, Vol. **XXXIII** Part III 1951), "The Production for Indian Manufacturers"—M. M. Dutt (Sankhya, Vol. 15, 1955); "The Production Function for Indian Manufacturers 1948"—R. J. Bhatia (Journal of Bombay University, Jan. 1954); "Production Function for Indian Industry"—V. N. Shastry & Murthy *Econometrica*, Vol 25, April 1957).

TECHNIQUES OF ESTIMATION

In estimating the production function for the purpose of this study, modified Cobb-Douglas production function has been used, which is as follows:

$$P_i = AL_i^k C_i^j R_i^m F_i^n U$$

where P_i is output, L_i, C_i R_i and F_i, are labour, capital, raw material and fuel etc., respectively in the ith year. U is the random variable and k, j, m, and n are the elasticities of output with respect to labour, capital, raw material and fuel etc.

The sum of the elasticities shows the degree of "return to scale" in production.

That is,

$k+j+m+n<1$ means decreasing return to scale
$k+j+m+n=1$ means constant return to scale
$k+j+m+n>1$ means increasing return to scale

SELECTION OF VARIABLE AND THEIR MEASUREMENT

Selection—In the estimation of any functional relationship, the choice of variable is a difficult task. Production is not just a function of labour and capital as in most of the investigations on production function only labour and capital have been included as an independent variables. There are many other explicit variables, such as raw material, power and fuel that affect production. Apart from these, there are variables which are difficult to measure in quantitative terms but which have their influence on production. These variables include, among others, organising ability industrial policy tax structure and market conditions.

In a macro-economic relationship of an economy as a whole, the inclusion of raw material, power and fuel is not necessary, if output is taken in terms of "value added". In an industry-wide data, the inclusion of raw material, power and fuel as explanatory variables is essential. Even in the case of an economy as a whole, the imported raw material should be included as a separate variable. The importance of power and fuel as a separate variable has also been increased in the present era of industrialisation. The expenditure on these items shows the degree of the mechanisation in the field of production. As has been proved by the many empirical studies, such as the one conducted by Christ[2], that raw materials and fuel are not always stable functions of output. That is why in the present analysis, raw material, power and fuel have also been included as independent variables.

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[1] "Production Function for Indian Steel Industry"—A. K. Sarkar; *The Indian Economic* Journal 263, XII (3): 263

[2] Review on the Siegel's paper on output, Input and Productivity Measurement (NBER, Princeton 1961) page 43-44.

Inclusion of random variable to represent the combined effect of factors that are not permanent, regular or measurable, is also very essential. Inclusion of random variable or disturbance-term also reflects inherent indeterminancy of industrial behaviour and errors of observation.

Measurement of Variables Involved

If factors of production can be measured in physical terms, the problem of the measurement of variables is solved. In practice, it is very difficult, rather impossible, to measure all the input factors in their physical units. Even the production of any particular industry is not additive in a meaningful physical aggregate because of varying quality and the nature of its products. The units of measurement of products and by-products also differ. While the production of sugar is measured in terms of tons, its by-product, alcohol, is measured in terms of litres. Similarly, in cotton textile, while the production of yarn is measured in term of bales or tons, the measurement of cloth is done in metres.

Apart from the problem of the physical unit of measurement, there is also a technical difficulty in the measurement of different variables. Some variables are measured as flow variables, while others are measured as stock variables. Output is measured as a flow variable but the number of workers employed as a point of time during accounting period (if taken as a measurement of labour input) is a stock variable. Similarly, the capital invested is a stock variable. These can also be measured as flow variables if man-hours-worked is taken in place of workers employed, and capital consumption is taken in place of capital invested.

As a solution of these problems and in order to bring uniformity, all the variables involved in functional relationships, have been measured in value terms and as flow variables.

It is a pre-requisite of every analysis that all the variables and the procedure of their estimation, should be made clear in order to avoid confusion in the interpretation of the results.

The dependent variable 'P' is defind as the gross value of output. It is the aggregate value of the products and by-products manufactured by an industry for sale during the year. Any incidental expenditure on sales and products consumed for further manufacture in the factory has been excluded. The independent variable 'L' representing labour, has been measured as the total wages, salaries and other benefits paid to the workers. Workers exclude persons holding position of supervision or management or employed in a confidential position. As regards the independent variable 'C' representing capital, estimation has been made of capital consumption—interest and depreciations so as to reflect the real use of capital. The variables 'R' and 'F' representing raw material, power and fuel, have been estimated in terms of expenditure on these items.

Instead of getting the elasticities of the input factors, we get elasticities of output with respect to the cost of various factors—labour, capital, material and power and fuel, since independent variables are measured in terms of expenditure incurred on these factors of production.

All the variables, dependent as well as independent, are easily ascertainable in terms of value, but there is the problem of price-movements. If inputs as well as output are valued at current prices, an identical price movement on either side of the equation is essential. But this is not possible in a real economic world. The prices of all the factors do not move in the same proportion and even in the same direction.

To overcome the problem of price-movements and to present the facts in their proper perspective, two sets of production functions have been estimated. The first is estimated at current prices and the second at constant prices.

CONSTRUCTION OF PRICE-DEFLATORS

The lack of detailed and reliable information about the price-movements and non-availability of the price deflators for various input—raw material, power and fuel, capital and labour and for output consisting of a variety of products in each selected industry present a problem of scientific analysis. The price-indices prepared by the different agencies, varying in their objects, coverage, weighting systems and in base years, cannot be used. Moreover, there are no complete series covering the entire period of the investigation. To overcome these difficulties, special price-deflators have been constructed. Here only the construction method of the price indices, is given; for other details such as selection of the items to be included in raw materials, power and fuels, capital and output, reference may be made to the appendix prepared for this purpose.

In the Census of Manufacture and Annual Survey of Industries, (the sources of data) output and inputs are given in physical terms as well as in value terms. Thus the unit prices of every selected item have been calculated in different years in order to construct the individual price-indices of these items. After constructing the indices of these items in different industries, average indices of selected item in each variable have been constructed to represent the price-indices of raw material, power and fuel and output. The estimation procedure can be represented as follows:—

$$I_{ij}=\frac{P_{ij}}{P_{oj}}\times 100$$

Where I_{ij}=index number of jth item in ith year

P_{ij}=price of the jth item in ith year

P_{oj}=price of the jth item in the base year

Therefore, the average index of the selected variable will be:—

$$I_i=\frac{1}{n}\Sigma_{j=1}^{n} I_{ij}$$

In order to avoid the problem of weighting, efforts have been made to select those items which have more or less the same importance in the variable and constitute the major proportion of the universe.

MULTICOLLINEARITY

Traditionally, all inputs move in the same direction. Output is the function of inputs. When inputs—labour, capital, raw material and fuel are transformed into output, there is an unidirectional behaviour amongst the various inputs. It is very rare that some input factors are reduced while others are enhanced when output is to be increased. Thus the unidirectional-movement of the input factors causes high inter-correlations between the independent variables. The presence of inter-correlations among the independent variables is termed the problem of multi-collinearity in econometrics. The presence of multi-collinearity leads to the uncertainty of results. When two independent variables are highly correlated, it is possible in the estimation of the function to replace one variable by another, but the individual impacts of these two variables on output cannot be the same. Therefore, it is difficult to estimate the exact impact of the variable on output if there is a high degree of multicollinearity. The following table shows the degree of multicollinearity in the independent variables of the functions to be estimated. The presence of multicollinearity can be judged by the coefficients of correlations.

TABLE 1

Coefficients of Correlation between Independent Variables in Selected Industries

Industry	$r_{x_1x_2}$	$r_{x_1x_3}$	$r_{x_1x_4}$	$r_{x_2x_3}$	$r_{x_2x_4}$	$r_{x_3x_4}$
Iron & Steel	·84	·93	·90	·96	·92	·96
Cotton Textile	·98	·91	·96	·94	·98	·89
Sugar	·98	·96	·97	·95	·97	·95
Jute	·70	·15	·67	·11	·81	·10

Abbreviations:

x_1=labour; x_2=capital; x_3=raw material x_4=power and fuel.

Note—Current price time series data 1947-62 have been used to calculate the coefficients of correlations.

The independent variables included in the production function of Indian industries are highly correlated except in the jute industry. But such a high degree of multicollinearity should not be considered a problem that makes it difficult to estimate the functions. The high degree of inter-correlation does not cause unreliability in the results if over-all correlation (Multiple-correlation) among all the variables is higher than the individual correlations between the two variables. According to Klien, “inter correlation or multicollinearity is not necessarily a problem unless it is highly relative to the over-all degree of multiple correlation among all variables simultaneously. Production functions with over-all correlations much in excess of 0·95, as often occur in practice, can be well estimated with inter-correlations between labour and capital as high as 0·8 to 0·9."[1]

In the case of production functions of major industreis of India to be estimated, the multiple correlations are higher than the individual correlations. The Multiple Correlations are as high as ·98 in Iron & Steel, ·99 in Cotton Textile and Sugar and ·97 in Jute. Therefore, it can easily be said that the estimation of the production function is quite satisfactory.

EMPIRICAL RESULTS

The basic data used in the estimation of the production function of the major industries of India, have been taken from the 'Census of Indian Manufactures' (1947 to 58) and 'Annual Surveys of Industries' (1959 to 1962). Interest, one of the components of capital costs, is not given in this series. Therefore, it has been calculated on the productive capital employed at the average rate[2] of interest of the debentures of the industrial concerns. Even the depreciation, another component of capital cost, as provided by the firm may be questioned because, in the 'Census of Indian Manufactures' and 'Annual Survey of Industries', depreciation is calculated on the basis of the rates allowed for Income-tax purposes, ignoring, however, the initial depreciation allowance which has nothing to do with the life of the assets. Therefore, depreciation has also been calculated independently on the fixed capital. The rate[3] of depreciation has been decided upon after taking into account the nature of the fixed assets—building, plant and furniture and fixture.

The period covered by the study is 1947 to 1962, but in order to minimise the effect of technological changes, the study has been further divided into two parts: one for the period as a whole i. e. 1947 to 1962 and the other for the period 1953 to 1962. The later period of the study relates to Economic Planning, which brought about industrial development in this country. A separate study of this era will bring to light the technological changes that have occurred in the manufacturing process of different industries.

Industry-wise results of the estimates are given in the following tables:

TABLE 2

Production Function for Iron & Steel Industry

(Current-Price Estimates)

Period	Constant term A	Exponent of labour k	Exponent of capital j	Exponent of raw material m	Exponent of power & fuel n	R	Sum of exponents (k+j+m+n)
1947–62	0·8466	0·4595 (0·6095)	0·1992 (0·2242)	0·4271 (0·4832)	–0·1185 (0·2246)	0·98	0·9673
1953–62	2·9805	2·2446 (2·1175)	0·3714 (0·4162)	–0·2959 (0·9250)	–0·5590 (0·8646)	0·96	1·7611

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[1] Op. Cit. L.R. Klien, p. 101 (Prentice Hall of India Pvt. Ltd., 1965)

[2] The average rate of interest has been taken at 5½%.

[3] The rate of depreciation has been taken at 8%.

TABLE 3

Production Function for Iron & Steel Industry

(Constant-Price Estimates)

Period	Constant term A	Exponent of labour k	Exponent of capital j	Exponent of raw material m	Exponent of power & fuel n	R	Sum of exponents (k+j+m+n)
1947–62	0·9380	0·1142 (0·3374)	0·1283 (0·1017)	0·7025 (0·2903)	−0·003 (0·2133)	0·97	0·9420
1953–62	0·5827	−0·0599 (0·2567)	−0·1564 (0·1344)	0·7680 (0·2524)	0·4658 (0·02649)	0·99	1·9673

TABLE 4

Production Function for Cotton Textile Industry

(Current-Price Estimates)

Period	Constant term A	Exponent of labour k	Exponent of capital j	Exponent of raw material m	Exponent of power & fuel n	R	Sum of exponents (k+j+m+n)
1947–62	−0·3008	0·7495 (0·2374)	0·0032 (0·1467)	0·5080 (0·1021)	−0·1542 (0·1494)	0·99	1·1065
1953–62	−0·6240	0·6708 (0·4360)	−0·3013 (0·3083)	1·2221 (0·6518)	−0·1879 (0·2227)	0·99	1·4037

TABLE 5

Production Function for Cotton Textile Industry

(Constant-Price Estimates)

Period	Constant term A	Exponent of labour k	Exponent of capital j	Exponent of raw material m	Exponent of power & fuel n	R	Sum of exponents (k+j+m+n)
1947–62	−0·4966	0·7860 (0·4020)	0·4844 (0·1742)	−0·0850 (0·2297)	0·0803 (0·1218)	0·98	1·1657
1953–62	−0·8160	1·1138 (0·7235)	0·5438 (0·3178)	−0·3683 (0·4637)	0·0621 (0·1531)	0·95	1·3514

TABLE 6

Production Function for Sugar Industry

(Current–Price Estimates)

Period	Constant term A	Exponent of labour k	Exponent of capital j	Exponent of raw material m	Exponent of power & fuel n	R	Sum of exponents (k+j+m+n)
1947–62	0·5053	–0·0051 (0·1023)	0·1216 (0·1169)	0·8164 (0·0899)	0·0442 (0·1196)	0·99	0·9771
1953–62	0·4517	0·1687 (0·0917)	–0·0238 (0·5697)	0·7285 (0·0557)	0·1432 (0·0515)	0·99	1·0166

TABLE 7

Production Function for Sugar Industry

(Constant–Price Estimates)

Period	Constant term A	Exponent of labour k	Exponent of capital j	Exponent of raw material m	Exponent of power & fuel n	R	Sum of exponents (k+j+m+n)
1947–62	2·0447	–0·2335 (0·2328)	0·2071 (0·1567)	0·4225 (0·1728)	0·3921 (0·2160)	0·98	0·7882
1953–62	2·9642	–0·4825 (0·2764)	0·2741 (0·2151)	0·5554 (0·1773)	0·1840 (0·2572)	0·99	0·5310

TABLE 8

Production Function for Jute Industry

(Current–Price Estimates)

Period	Constant term A	Exponent of labour k	Exponent of capital j	Exponent of raw material m	Exponent of power & fuel n	R	Sum of exponents (k+j+m+n)
1947–62	0·6115	0·1338 (0·2359)	0·0164 (0·1288)	0·7339 (0·0570)	0·0792 (0·0861)	0·97	0·9633
1953–62	–0·6088	0·5229 (0·1825)	–0·0975 (0·1379)	0·5706 (0·0624)	0·2193 (0·0697)	0·99	1·2153

TABLE 9

Production Function for Jute Industry

(Constant-Price Estimates)

Period	Constant term A	Exponent of labour k	Exponent of capital j	Exponent of raw material m	Exponent of power & fuel n	R	Sum of exponents (k+j+m+n)
1947–62	–0·1103	0·1042 (0·4623)	0·1740 (0·2120)	0·4567 (0·3354)	0·4751 (0·2857)	0·69	1·2100
1953–62	–5·9540	0·6230 (1·8593)	0·7909 (0·6715)	0·5313 (0·5300)	0·4146 (0·7584)	0·83	2·3598

Note—Figures in parentheses stand for the Standard Errors of the corresponding regression coefficients in tables 2 to 9.

It appears from the results that the models used have provided a good fit to the data. The coefficients of multiple correlation are highly significant. In all the cases except for the jute industry in constant price estimates, the value of 'R' is more than 0·95. Thus, more than 95 per cent of the variations in output have been explained by the independent variables viz., labour cost, capital cost, material cost, power and fuel cost. In order to judge the nature of the fit of the function in a scientific way logs of the estimated output and observed output (given in Appendix) and standard errors of the regression coefficients (given in parentheses alongwith the respective regression coefficient in each table), have also been computed.

Each of these regression coefficients measures the elasticity of output with respect to the expenditure incurred on the corresponding factor of production.

The respective elasticities of various inputs widely differ from each other in two types of estimate—current price and constant price. This supports our hypothesis regarding price-movements, that prices of all the inputs do not vary in the same proportion or even in the same direction. If there had been identical price-movements on either side of the equation, the elasticities of the inputs would have been equivalent to each other in the two types of estimates. Price-indices of outputs and inputs (given in Appendix) further support the diversified behaviour of the price-movement. This is the reason why there is a wide divergence between the elasticities of a factor in the two types of estimate—current price and constant price.

Even the elasticities of the input factors are not same in the different periods covered by the study. The values of the elasticities are higher in the later periods of the study i.e., 1953-62 than the early period of the study i.e. 1947-62. Ignoring the effect of the error of small numbers of observation, the significant values of the elasticities are the indications of the technological improvements which took place in Indian industries during the planning period.

Negative elasticities of certain variables, are somewhat confusing. Prof. Tinter[1] has also come to the same conclusion after doing some statistical tests. In actual practice, it is very difficult to conceive that any additional expenditure on some factors of production will in fact, decrease the total production. But Boris P. Pesek[2] has observed that "our production function has a certain property by which an increment in output slower than an increase in the labour force will attribute to the capital a negative exponential value."

Exponent of any factor's cost is the product of the unit cost of that factor and its marginal productivity. The derived equations are:

k = (Marginal productivity of labour cost) × (Unit labour cost)
j = (Marginal productivity of capital cost) × (Unit capital cost)
m = (Marginal productivity of material cost) × (Unit material cost)
n = (Marginal productivity of power and fuel) × (Unit power & fuel cost)

The unit cost of any factor cannot, in any way, be negative. Therefore, the only possibility for such a phenomenon is the negative marginal productivity of the cost of that factor which has a negative exponential value. If an industry is operating under diminishing return, any excess expenditure, beyond what is needed, on any variable factor, may cause a negative marginal productivity of that factor.

Our empirical results can also be supported by the findings of the Central Wage Board for the Sugar Industry. In this industry the exponents of labour are negative in both the types of estimates. Excess labour expenditure was found by the Wage Board.[3] Thirtyfive sugar factories out of 133 factories investigated by the Board, could assess the surplus labour in their respective concerns. They gave category-wise details of surplus labour and wage cost. In the manual class, 696 permanents and 3655 seasonal with annual wage bills of Rs. 427732 and Rs. 1035947 respectively, were stated to be surplus. In the clerical class, 86 permanents and 153 seasonals with annual wage bills of Rs. 96,936 and Rs. 57,794 respectively, were said to be surplus. In technical and professional class, 52 permanent and 19 seasonals with annual wage bills of Rs. 75,650 and Rs. 14289 respectively, were claimed to be surplus. In supervisory class, 16 permanents and 6 seasonals with annual wage bills of Rs. 21507 and Rs. 3060 respectively, were said to be surplus.

RETURNS TO SCALE

The exponents have also another important implications of economic value. The sum of the exponents shows the return to scale under which the Industries are operating. During the period under study, the Iron & Steel, Sugar and Jute industries are operating under diminishing return. The Cotton Textile is operating under increasing returns.

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[1] G. Titner, "A note on the Derivation of Production Function from Farm Records" *Econometrica*, No. 1, Vol. 12, Jan. 44.

[2] Boris P. Pesek, "Kursurts', Incremental Capital Output Ratios", *Economic Dev. and Cultural Changes*, Vol. XII, No. 1, October 1963, p. 24.

[3] Report of the Central Wage Board for Sugar Industry 1960 (Govt. of India Publication), page 22.

The most remarkable point that emerges from this study is the increasing return to scale in all the selected industries during the planning period i.e. from 1953-62. This shows the technological advancement made in India in the field of industrial science during the course of five year plans. The policy of development chosen in India accords a high priority in increasing the productive capacity on the industries. New machines are being used and new plants have been set up; methods of production have been modernised. This has enhanced the installed capacity of the industrial concerns resulting in increasing returns to scale in the major industries of India. Industries highly mechanised such as iron & steel, cotton textile and jute have a higher degree of increasing returns than the sugar industry, which is considered as labour intensive.

AVERAGE AND MARGINAL PRODUCTIVITY OF FACTORS' COST

Estimates of the parameters of the models are also used to calculate the average and marginal productivity of the various inputs. This is the important property of the function by which the entrepreneur can allocate his resources among different factors in such a way, so as to minimise his cost of production. The derived formula is :

Marginal Productivity of Labour Cost$=k\frac{P}{L}=k\times$(average productivity of labour)

Marginal Productivity of Capital Cost$=j\frac{P}{C}=j\times$(average productivity of capital)

Marginal Productivity of Material Cost$=m\frac{P}{R}=m\times$(average productivity of material)

Marginal Productivity of Power & Fuel Cost$=n\frac{P}{F}=n\times$(average productivity of power & fuel)

Where P is the total output and L, C, R and F are total expenditures on labour, capital, material, power and fuel respectively.

The statistical results of the average and marginal productivity of different input factors in selected industries of India are given in the following tables:

TABLE 10

Average Productivities of Different Input factors in Selected Industries of India

Iron & Steel Industry

Nature of Estimates	Period	Average Productivity			
		Labour	Capital	Raw material	Power & fuel
Current Price	1947–62	7·5618	8·5954	2·4422	8·8793
	1953–62	8·2430	8·1556	2·3698	9·5834
Constant Price	1947–62	8·5433	4·5334	3·7233	6·9202
	1953–62	9·6145	3·8710	3·7778	7·2030

TABLE 11

Cotton Textile Industry

Nature of Estimates	Period	Average Productivity			
		Labour	Capital	Raw material	Power & fuel
Current Price	1947–62	4·7283	21·0930	1·7150	25·8037
	1953–62	4·7170	19·8216	1·7276	24·0748
Constant Price	1947–62	4·1108	15·0585	1·6291	24·1581
	1953–62	6·3400	14·3808	1·6489	23·2587

TABLE 12

Sugar Industry

Nature of Estimates	Period	Average Productivity			
		Labour	Capital	Raw material	Power & fuel
Current Price	1947–62	14·8251	16·2818	1·4998	61·4976
	1953–62	14·7321	15·4282	1·5142	59·4054
Constant Price	1947–62	16·5308	16·1068	1·4648	79·4536
	1953–62	16·0660	15·3538	1·4181	79·8900

TABLE 13

Jute Industry

Nature of Estimates	Period	Average Productivity			
		Labour	Capital	Raw material	Power & fuel
Current Price	1947–62	6·0276	24·3315	1·4723	3·6403
	1953–62	5·5979	21·3174	1·5173	8·7955
Constant Price	1947–62	6·7928	18·4680	1·3836	21·8495
	1953–62	7·6027	16·8162	1·4608	18·7978

Note—While calculating average productivities of input factors, variable P is taken as the mean of the total output produced during the period covered by the study. Similarly variable L,C,R,F are taken as the means of the total expenditure incurred on labour, capital, raw material and power & fuel during the period covered by the study.

TABLE 14

Marginal Productivities of Different Input factors in Selected Industries of India

(Current-Price Estimates)

Industry	Period	Marginal Productivity			
		Labour	Capital	Raw material	Power & fuel
Iron & Steel	1947–62	3·4746	1·7122	1·0436	–1·0522
	1953–62	18·5022	3·02891	–0·7012	–5·3571
Cotton Textile	1947–62	3·5438	0·6750	1·7150	–3·9763
	1953–62	3·1642	–5·9722	1·7276	–4·5237
Sugar	1947–62	–0·0756	1·9798	1·2244	2·7182
	1953–62	2·4853	–0·3672	1·1030	8·5069
Jute	1947–62	0·8064	0·3990	1·0852	3·6403
	1953–62	2·9271	–2·0784	0·8658	8·7955

TABLE 15

Marginal Productivities of Different Input factors in Selected Industries of India

(Constant–Price Estimates)

Nature of Estimates	Period	Marginal Productivity			
		Labour	Capital	Raw material	Power & fuel
Iron & Steel	1947–62	0·9756	0·5818	2·6156	–0·0207
	1953–62	–0·5759	–0·6054	2·9014	3·3552
Cotton Textile	1947–62	4·1108	7·2943	–0·1385	1·9398
	1953–62	6·3400	7·8203	–0·6072	1·4443
Sugar	1947–62	–3·8179	3·3357	0·6189	31·1538
	1953–62	–7·7518	4·2085	0·7876	14·6997
Jute	1947–62	0·7078	3·2134	0·6319	21·8495
	1953–62	4·7364	13·3000	0·7761	18·7978

IMPLICATIONS

The exponents of the input factors, as calculated earlier, are different from their marginal productivities. But they have a close bearing. The exponent of any particular factor is the elasticity of output with respect to that factor i.e. if there is one per cent increase in that input factor. The percentage increase in output will be equal to the corresponding value of its exponent, whereas the marginal productivity of any factor is the output produced by the last unit of that input factor.

The marginal productivity of labour as estimated by the production functions, is more than unity in most of the selected industries of India. It implies that, if an additional rupee is spent on labour, the output will increase by more than a rupee. When the marginal productivity of any factor increases more than the proportional cost of the factor, decline in the unit cost of that input factor is natural.

The marginal productivity of labour is greater than the marginal productivity of capital and raw material (with a few exceptions in current price estimates) because wages do not move as fast as the prices of capital goods and raw materials; on the other hand the marginal productivity of labour is lower than the marginal productivity of capital in constant price estimates because the influence of price variations has been removed from all inputs. In the absence of price-movements over a long period of time, any change in the elasticities of labour and capital may easily be assigned to alternative techniques of production involving substitution of various factors. Improved techniques involve the use of better and new machines, and new machines are always more productive than the new worker. The causes of the negative marginal productivity of labour input in the sugar industry have already been told.

The present study of the production function is conclusive and suggestive. It makes clear that technological change during the plan period has enhanced the marginal productivity of the variable factors in Indian industries.

The increasing return to scale of production during the planning period in all the selected industries excepting sugar, and greater marginal productivity of labour input vis-a-vis its cost, suggest the declining trends of unit labour cost in these industries. As labour is more or less a variable factor, increasing return to scale of production may also be considered as one of the important factors that has reduced unit cost of labour inspite of rising wages in the major Industries of India.*

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[1] In his D. Litt. thesis on "Trends of Labour Costs in Major Industries of India", the author has discovered a declining trend, of unit labour cost.

APPENDIX

TABLE 1

Log of Observed and Estimated Output of Iron & Steel Industry of India

(Current-Price Estimates)

Year	Log of observed output	Log of Estimated output
Time Series: 1947–62		
Equation: $P = 0{\cdot}8466\ L^{\cdot 4595}\ C^{\cdot 1992}\ R^{\cdot 4271}\ F^{-\cdot 1185}$		
1947	5·5828	5·5700
1948	5·6279	5·6279
1949	5·7273	5·6964
1950	5·7471	5·7531
1951	5·7861	5·8312
1952	5·8465	5·8732
1953	5·8603	5·8690
1954	5·9359	5·9260
1955	5·9664	5·9767
1956	6·0566	6·0410
1957	6·2410	6·0779
1958	6·1103	6·1466
1959	6·1855	6·2291
1960	6·2408	6·2653
1961	6·2726	6·3005
1962	6·2830	6·4501
Time Series: 1953–62		
Equation: $(-)2{\cdot}9805\ L^{2\cdot 2446} C^{\cdot 3714}\ R^{-\cdot 2959} F^{-\cdot 5590}$		
1953	5·8603	5·8670
1954	5·9359	5·9497
1955	5·9664	6·0104
1956	6·0566	6·0435
1957	6·2410	6·0915
1958	6·1103	6·1538
1959	6·1855	6·2096
1960	6·2408	6·2349
1961	6·2726	6·2644
1962	6·2830	6·4847

TABLE 2

(Current-Price Estimates)

Year	Log of observed output	Log of Estimated output
Time Series: 1947–62		
Equation: $P=(-)\cdot3008\ L^{\cdot7495}\ C^{\cdot0032}\ R^{\cdot5080}\ F^{-\cdot1542}$		
1947	6·3863	6·3845
1948	6·5491	6·5205
1949	6·5276	6·5608
1950	6·5022	6·5116
1951	6·6474	6·6270
1952	6·6166	6·6340
1953	6·5967	6·6182
1954	6·6341	6·6376
1955	6·6504	6·6370
1956	6·6864	6·6838
1957	6·6922	6·7102
1958	6·6567	6·6557
1959	6·7044	6·7101
1960	6·7756	6·7705
1961	6·8438	6·8324
1962	6·8624	6·8660
Time Series: 1953–62		
Equation: $P=(-)2\cdot6240\ L^{\cdot6708}\ C^{-\cdot3013}R^{1\cdot2221}F^{-\cdot1879}$		
1953	6·6182	6·6045
1954	6·6376	6·6373
1955	6·6370	6·6341
1956	6·6838	6·6851
1957	6·7102	6·7121
1958	6·6557	6·6532
1959	6·7101	6·7153
1960	6·7705	6·7683
1961	6·8324	6·8396
1962	6·8660	6·8524

TABLE 3
(Current-Price Estimates)

Year	Log of observed output	Log of Estimated output
Time Series: 1947–62		
Equation: $P = \cdot 5053\ L^{-\cdot 0051} C^{\cdot 1216} R^{\cdot 8164} F^{\cdot 0442}$		
1947	5·8503	5·8749
1948	5·8190	5·8367
1949	5·8420	5·8669
1950	5·9354	5·9213
1951	6·0366	6·0597
1952	5·9209	5·9053
1953	5·8495	5·8368
1954	6·0441	6·0395
1955	6·0723	6·0735
1956	6·1255	6·1387
1957	6·1430	6·1466
1958	6·1332	6·1355
1959	6·1552	6·1447
1960	6·2695	6·2640
1961	6·3655	6·3574
1962	6·3365	6·3364
Time Series: 1953–62		
Equation: $P = 4517\ L^{\cdot 1687} C^{-\cdot 0238} R^{\cdot 7285} F^{\cdot 1432}$		
1953	5·8495	5·8420
1954	6·0441	6·0442
1955	6·0723	6·0687
1956	6·1255	6·2993
1957	6·1430	6·1418
1958	6·1332	6·1287
1959	6·1553	6·1554
1960	6·2695	6·2621
1961	6·3655	6·3545
1962	6·3365	6·3382

TABLE 4
(Current-Price Estimates)

Year	Log of observed output	Log of Estimated output
Time Series: 1947–62		
Equation: $P = \cdot 6115\ L^{\cdot 1338}\ C^{\cdot 0164}\ R^{\cdot 7339}\ F^{\cdot 0792}$		
1947	6·1024	6·1056
1948	6·2052	6·2077
1949	6·1553	6·1857
1950	6·1726	6·1595
1951	6·3251	6·2948
1952	6·2282	6·2243
1953	6·0527	6·1051
1954	6·0910	6·0786
1955	6·0910	6·1476
1956	6·1545	6·1629
1957	6·1335	6·1523
1958	6·1383	6·1339
1959	6·1113	6·0970
1960	6·2125	6·2246
1961	6·2613	6·2832
1962	6·2860	6·2732
Time Series: 1953–62		
Equation: $P = (-)\cdot 6088\ L^{\cdot 5229}\ C^{-\cdot 0975}\ R^{\cdot 5706}\ F^{\cdot 2193}$		
1953	6·0527	6·3059
1954	6·0910	6·0575
1955	6·0910	6·1415
1956	6·1545	6·1586
1957	6·1335	6·1350
1958	6·1383	6·1430
1959	6·1113	6·1127
1960	6·2125	6·2214
1961	6·2613	6·2524
1962	6·2860	6·2749

TABLE 5
(Constant-Price Estimates)

Year	Log of observed output	Log of Estimated output
Time Series: 1947–62		
Equation: $P = \cdot 9380 \; L^{\cdot 1142} C^{\cdot 1283} R^{\cdot 7025} F^{-\cdot 003}$		
1947	5·5828	5·6075
1948	5·5561	5·6024
1949	5·6201	5·6546
1950	5·6503	5·6792
1951	5·6688	5·6726
1952	5·7260	5·6375
1953	5·7203	5·6531
1954	5·7372	5·7414
1955	5·8203	5·7746
1956	5·8170	5·8077
1957	5·7680	5·8008
1958	5·7967	5·8585
1959	5·8676	5·8743
1960	6·0000	5·9977
1961	6·0322	5·9958
1962	6·2090	6·2117
Time Series: 1953–62		
Equation: $P = \cdot 5827 \; L^{-\cdot 0599} C^{-\cdot 1564} R^{\cdot 7680} F^{\cdot 4658}$		
1953	5·7203	5·7027
1954	5·7372	5·7762
1955	5·8203	5·7753
1956	5·8170	5·8082
1957	5·7680	5.8111
1958	5·7967	5·8143
1959	5·8676	5·8593
1960	6·0000	6·0116
1961	6·0322	6·0229
1962	6·2090	6·2075

TABLE 6

(Constant-Price Estimates)

Year	Log of observed output	Log of Estimated output
Time Series: 1947–62		
Equation: $P=(-)\cdot 4966\ L^{\cdot 7860} C^{\cdot 4844} R^{-\cdot 0850} F^{\cdot 0803}$		
1947	6·3863	6·3731
1948	6·3802	6·3997
1949	6·4150	6·3985
1950	6·4038	6·2388
1951	6·4300	6·4394
1952	6·4582	6·4666
1953	6·4771	6·4628
1954	6·5135	6·4980
1955	6·5441	6·5045
1956	6·5529	6·5541
1957	6·5717	6·5822
1958	6·5263	6·5151
1959	6·5855	6·5618
1960	6·5353	6·5659
1961	6·6345	6·6262
1962	6·6611	6·6574
Time Series: 1953–62		
Equation: $P=(-)\cdot 8160\ L^{1\cdot 1138} C^{\cdot 5438} R^{-\cdot 3633} F^{\cdot 0621}$		
1953	6·4771	6·4796
1954	6·5135	6·5126
1955	6·5441	6·5082
1956	6·5529	6·5643
1957	6·5717	6·5809
1958	6·5263	6·5235
1959	6·5855	6·5711
1960	6·5353	6·5614
1961	6·6345	6·6258
1962	6·6611	6·6469

TABLE 7

(Constant-Price Estimates)

Year	Log of observed output	Log of Estimated output
Time Series: 1947–62		
Equation: $P=2\cdot0447\ L^{-\cdot2335}\ C^{\cdot2071}\ R^{\cdot4225}\ F^{\cdot3921}$		
1947	5·9004	5·8975
1948	5·8734	5·8615
1949	5·8085	5·8709
1950	5·9365	5·8805
1951	6·0073	5·9577
1952	5·9048	5·9176
1953	5·8082	5·8086
1954	6·0445	6·0578
1955	6·0726	6·0771
1956	6·1492	6·1384
1957	6·1656	6·1663
1958	6·1335	6·1607
1959	6·1430	6·0259
1960	6·3401	6·0354
1961	6·3742	6·3320
1962	6·3365	6·3517
Time Series: 1953–62		
Equation: $P=2\cdot9642\ L^{-\cdot4825}\ C^{\cdot2741}\ R^{\cdot5554}\ F^{\cdot1840}$		
1953	5·8082	5·7889
1954	6·0445	6·0565
1955	6·0726	6·0831
1956	6·1492	6·1372
1957	6·1656	6·1511
1958	6·1335	6·1575
1959	6·1430	6·1725
1960	6·3401	6·3043
1961	6·3742	6·3258
1962	6·3365	6·3632

TABLE 8

(Constant-Price Estimates)

Year	Log of observed output	Log of Estimated output
Time Series: 1947–62		
Equation: $P=(-)\cdot1103\ L^{\cdot1042}\ C^{\cdot1740}\ R^{\cdot4567}\ F^{\cdot4751}$		
1947	6·1028	6·0532
1948	6·0846	6·1235
1949	6·0005	6·0712
1950	6·0141	5·9872
1951	6·0502	6·0381
1952	6·0469	6·0336
1953	5·8795	5·9496
1954	6·0656	5·9867
1955	6·0667	6·0455
1956	6·1212	6·0761
1957	6·8785	6·0609
1958	6·1383	6·0671
1959	6·0941	5·8900
1960	6·1676	6·1411
1961	6·0882	6·1225
1962	6·1526	6·1573
Time Series: 1953–62		
Equation: $P=(-)5\cdot9540\ L^{\cdot6230}\ C^{\cdot7909}\ R^{\cdot5313}\ F^{\cdot4146}$		
1953	5·8795	5·9310
1954	6·0656	5·9524
1955	6·0667	6·0710
1956	6·1212	6·1399
1957	6·8785	6·1185
1958	6·1383	6·0929
1959	6·0941	6·8442
1960	6·1676	6·1185
1961	6·0882	6·1098
1962	6·1526	6·1864

Agra University Journal of Research (Letters),
Vol. XVIII, Pt. II, July 1970.
Pages 43—52

REVISION OF THE CONSTITUTION

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The recent decision of the Supreme Court declaring the President's order of September 6, 1970, under Art. 366(22) of the Constitution, "derecognizing" the Princes, their Privy purses and privileges as *ultra vires*, illegal and on that ground inoperative, has led to a number of mixed reactions. Political opinion in the country is sharply divided on the rights and wrongs of the majority judgement. The right wing of the political opinion has hailed it and declared the Supreme Court as the 'protector of the people's right', and 'guardian of the people's liberties.' The left wing has assailed the decision. Bhupesh Gupta has described it as "a judicial assassination" of social objectives and called for a change of the constitution.[1] Chandra Shekhar has described the judgement as ' very unfortunate" and said that socio-economic changes could not be brought about under the present system. He has even warned that if the Parliament failed to give lead and provide the guide lines the people will take recourse to unconstitutional methods.[2] The demand for the revision of the constitution has become still strong and government is inclined to accept the demand of the amendment of the constitution.

A left weekly[3] has made a spirited plea to 'overhaul the constitution.' Nehru's birthday is sought to be celebrated by revising the constitution. The main argument is that the constitution was framed by a Constituent Assembly which represented 13% of the Indian population and this franchise was limited to property and educational qualifications and as such they did not represent the main aspiration of the people. Also, after independence, "the Indian social structure has undergone basic changes and the Indian constitution is "the biggest road-block" and the vested interests are charged "for the resistance in implementation of the wishes of the people and Parliament." The large scale violence in the country, consequent to the people's frustration, is due to an obstructing constitution. The weekly pleads for the summoning of the Constituent Assembly, for rewriting the constitution of India, but admits,

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[1] *The Times of India*, New Delhi. Dec. 16, 1970, P. 9.

[2] *Ibid.*

[3] *Link*, Nov. 15, 1970, The Constitution and the People, pp. 11-12.

"the constitution itself does not provide for a mechanism for its review and revision, or for convening a Constituent Assembly".[1]

A monthly[2] has also posed the problem. Frequent and prolonged President's rules, tensions between Centre and States, confrontation between the popular will expressed in Parliament and entrenched privileges buttressed by the jurisprudence of the Supreme Court, regional economic imbalances, linguistic chauvinism and parochial fanaticism, obscurantist revival and above all arrested economic growth—all these are attributed to the constitution. The *Golaknath case* has virtually closed the door to constitutional amendments, enabling the abridgement of property and other fundamental rights. When the Supreme Court in the *Bela Bannerji case* (1954) ran counter not only to urgent national needs and public opinion but also established juristic opinion about 'compensation,' two courses were left before the nation: one was to 're-form' the Supreme Court and 'pack' it with judges of a particular ideology; the second was to disarm the Supreme Court by amending the constitution. Nehru took the second course of enacting the Constitution (Fourth Amendment) Act of 1955. This second course seems to be closed by the decision of *Golaknath case*.

There is no doubt that certain judicial decisions have thrown a challenge to the socio-economic development of the country. The economic imbalances between the states call for a re-thinking on the Union State relations. The letting loose of the disintegrating forçes of religion, region and language makes us feel that the constitution has not been able to realize the objective of "we the people of India". The demon of defection is creating chaos, leading to the instability of executive. Violence born of frustration, fear and misunderstanding rule rampant and is attributed to the failure of the constitution. The unprincipled coalitions, resulting in unprincipled politics, have created difficulty for the Governors, calling for a review of the position of the Governor whether he is an agent of the Centre or the constitutional head of a State? In this darkness of despondency, we hear the frustrated roar of revision of the constitution. This demand, born of desparation, has more heat than light and more sentiment than sense.

We may pause for a moment to consider : How far is the Indian Constitution responsible for this lurid look? A constitution which is charged for the instability of executive in U.P., Bihar, Madhya Pradesh and Panjab, provides stable executive in Tamil Nadu, Maharashtra, Mysore, and Gujerat. The economic imbalances are not the creations of the constitution. The constitution is not the source of 'senas'. Defections are not provided for in the constitution. Violence has no place in the constitution. Let us therefore not charge the constitution for our present ills which have their roots deep into the socio-economic system of the country. At the same time, let us not ignore the fact that the socio-economic system operates under a legal system.

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[1] *Ibid.* P. 12.

[2] *Seminar* No. 136. The Constitution (Dec. 1970).

This raises the question: Should the legal system change to suit the socio-economic order or should the socio-economic be tailored to the legal system?

Prof. Wheare has rightly said; "A constitution is indeed the resultant of a parallelogram of forces—political, economic and social which operate at the time of its adoption".[1] It therefore tends to reflect the dominant beliefs and interests, or some compromises between them. It does not necessarily reflect political or legal beliefs and interests only. It embodies conclusions or compromises upon economic and social matters which the framers of the constitution had wished to guarantee or proclaim.

The Indian constitution embodies the interest and opinion of its framers. These interests and opinions cover the whole range of social life, including not only economic affairs, but also religious, national, family or political affairs. The chapters on Fundamental Rights and Directive Principles of State Policy are its obvious examples. The Indian Constitution was framed by a Constituent Assembly in which the Indian National Congress Party was the dominant party and this party was committed to the goal of 'Cooperative Commonwealth' and not of socialism, to mixed economy and not to a socialist economy, to welfarism and not to democratic socialism.

A constitution is product of the prevailing conditions, the political climate, social structure, economic patterns and also the ideas and interests of the dominant class in the Constituent Assembly. It is creation of the time, in which it is framed. Times change. Thus a constitution is a dynamic document, seeking to create harmony in the society whose political process it is intended to regulate. The forces that bring about changes in constitution operate in one of the two ways. The one is through judicial interpretations where the wordings of the constitution are not altered, but the judges so interpret the constitution that the harmony between the social changes and the constitution is not disturbed. The second force is the changed circumstances which compel an amendment through the formal process of amendment. It is here that the political party in power provides the flesh and blood to the constitution and which moulds and shapes the constitution according to the aspirations of the people and its goals.

The interpretation of the constitution means the process by which the courts seek to ascertain the meaning of the legislative act through the medium of the authoritative forms in which it is expressed.[2] In interpreting the constitution, the Courts have accepted certain general principles. In interpreting the constitution the same principles shall apply as in interpreting a Statute.[3] The general rule about interpretation of the constitution is that the intention of the legislature is to be gathered primarily from the words of the constitution.[4]

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[1] Wheare, K. C. *Modern Constitution* (Oxford : 67) P. 67.

[2] *Salmond's Jurisprudence*, 9th Edition P. 220

[3] *AIR* 1950 SC. 93, *AIR* 1966 SC. 1993.

[4] *Ibid.*

The constitution must be interpreted according to the plain and natural meaning of the words used.[1] The court has no right to stretch or twist the language of the constitution in the interest of any political, social or constitutional theory.[2] If two constructions are possible, then the court may adopt that which will ensure smooth and harmonious working of the constitution and leave the other which will lead to absurdity, or give rise to practical inconvenience or makes well established provisions of existing law nugatory.[3] The courts are not at liberty to declare an Act void because in their opinion it is opposed to a spirit supposed to pervade the constitution but not expressed in words.[4] If there are two *interpretations possible* the one which leans in favour of the liberty of the people should be adopted in preference to the one that curtails that liberty.[5] It should be pragmatic from the point of view of a dynamic society.

The trend of judicial interpretation of the constitution indicates that our judiciary has not been progressive in its outlook. Constitutional provisions are not to be interpreted and crippled by narrow technicalities but as embodying the working principles for practical government. The constitution is not the home of legal curiosities. It is the epitome of the national aspirations of a free political society. It must be so rendered in construction as to be able to receive and reflect organ tomes of national life. Well established rules of interpretation require that the meaning and intention of the framers of the constitution must be ascertained from the language of the constitution itself. The Court is not concerned with the motives of the framers. The constitution is not to be construed in any narrow pedantic sense. Those who have to interpret it, must be inspired by a broad liberal spirit. A constitution is a living organic thing, which has to grow according to the circumstances. Life as an organism has to grow from within. It must therefore provide for that growth. The clauses providing for the amendment of the constitution are therefore a part of the constitution.

A constitution is always on the anvil and on trial. The Government working under that constitution is always alert as it is responsible to the people and also to the judiciary. It should grow with a growing nation. The constitution should reflect and receive the needs of the nations that it serves. It should facilitate changes in a smooth and easy manner. Shri Nehru rightly said in the Constituent Assembly, "While we want this constitution to be as solid and as permanent a structure as we can make it, nevertheless, there is no permanence in constitution. There should be certain flexibility.[6]" We have therefore adopted a procedure of amending the constitution which is both rigid and flexible. There is certain amount of rigidity with regard to some parts of the constitution. With regard to other parts, there is flexibility and the ordinary process of law making leads to a constitutional amendment.

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[1] *AIR* 1953, Trav-Co 205 (Pr 9).

[2] *AIR* 1963 SC. 1780.

[3] *AIR* 1953 SC. 14.

[4] *AIR* 1954 SC. 519.

[5] *AIR* 1951 SC. 310.

[6] *CA Deb.* Nov. 8, 1948, P. 247.

Dr. Ambedkar[1] speaking on the principles of the process of amending the constitution, pointed out that the various Articles of the constitution were divided into three categories. In one category were those Articles which would be open to amendment by Parliament by simple majority. In this category are included Arts 4 (admission or formation of new states) 169 (creation or abolition of Legislative Councils), schedule V para 7 (administration and control of scheduled areas and tribes) and schedule VI para 21 (administration of Tribal Areas in Assam). The second set of Articles (Parts III & IV of the constitution—dealing with Fundamental Rights and Directive Principles of State Policy) require a two-third majority of the Parliament, for amending them. The third category requires a two-third majority of the Parliament plus ratification by the states. These are fundamental matters where the states have important powers under the constitution and any unilateral amendment by Parliament may vitally affect the fundamental basis of the system built up by the constitution (Provisions dealing with the division of legislative powers between the Union and the State fall in this category. Also Articles 54 and 55 (Election of President), 73 (extent of Union executive power) 162 (extent of State's executive power) 241 (High Courts for Union Territory) chapter IV of Part V (Union judiciary) chapter V of part VI (State High Courts), the representation of States in Parliament and provision dealing with the amendment of the constitution.) Thus we have provided "a most facile procedure"[2].

The wordings of Article 368 have been questioned in the Courts.[3] A number of questions arise : does it contain both the power to amend the constitution and the procedure for such an amendment or does it contain the procedure only. If the power to amend is not contained in Article 368, where is it to be found? Can it ever be found in the residuary power? If not, is our constitution incapable of being amended? Is any part of "the constitution" mentioned in Art. 368 exempt from the amending process? These questions have been mentioned in order to call attention to the various aspects of one central question. Can the whole of our constitution be amended under Article 368?

In the *Golaknath case*, it has been held by majority decision, that Art. 368, as its marginal note shows, in terms prescribes the various procedural steps in the matter of amendment of the constitution but does not confer power on the Parliament either expressly or impliedly to amend the constitution. The doctrine of necessary implication can not be invoked if there is an express provision or unless lent for such implication the Art. will become nugatory.[4] Thus the power to amend the constitution is not in the Parliament. Article 368 does not confer the power of amending the constitution. It only points out the procedure of amendment.

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[1] *CA Deb.* Vol. IX, P. 1569.

[2] *CA Deb.* Vol. X, P. 975.

[3] *AIR* 1967 SC. 1674.

[4] *AIR* 1967 SC. 1658.

The wide preposition that the power to amend is a Sovereign power, that the said power is supreme to the legislative power, that it does not permit any implied limitations and that amendments made in the exercise of that power involve political questions and that therefore they are outside judicial review, was not acceptable in the Golaknath case.[1] There is nothing in the nature of the amending power which enables the Parliament to over ride all or the express or implied limitations imposed on that power. Our constitution adopted a novel method in the sense that Parliament makes amendment by legislative process, subject to certain restrictions.

If the Parliament can not amend, to the extent of abridging or taking away the Fundamental Rights, then who can? Under what procedure is it possible? Justice Hidayatullah pointed out the case of France and Japan, where there are certain articles in their constitution which can not be amended, through the ordinary procedure of constitutional amendment. For such articles, the convening of a Convention or Constituent Assembly is imperative; on similar lines, he suggested, "Parliament must amend Article 368 to convoke another Constituent Assembly, pass a law under item 97 of the First list of schedule 7, to call a Constituent Assembly and then that Assembly may be able to abridge or take away the Fundamental Rights if desired. It can not be done otherwise. To abridge or take away Article 32, a constituent body and not a constituted body is required. Parliament today is a constituted body in powers of legislation which include amendments of the constitution by a special majority but only so far as Article 13 (2) allows. To bring into existence a constituent body is not impossible. It may be said that this is not necessary because Article 368 can be amended to confer on Parliament constituent power over the Fundamental Rights. This would be wrong and against Article 13 (2)."[2]

Chief Justice Subba Rao and four other judges are not sure whether the residuary power of the Parliament may be relied upon to call for a Constituent Assembly for making a new constitution or radically changing the present one.[3] Justice Rama Swamy is doubtful if the proceedings of the new Constituent Assembly will have any legal validity, for the reason is that if the constitution provides its own method of amendment, any other method of amendment of the constitution will be unconstitutional and void.[4] He further went on to state, "If the fundamental rights are unamendable and if Article 368 does not include any such power, it follows that the amendments of say, Art 31 by the insertion of Articles 31 A, 31 B can only be made by a violent revolution."[5]

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[1] *Ibid* 1644.

[2] *Ibid* p. 1647 (1705 and 1718)

[3] *Ibid* p. 1670.

[4] *Ibid* pp. 1736-37.

[5] *Ibid* p. 1737.

Once the question of the power to amend the constitution is raised, the Supreme Court can not suggest a method of amendment without expressing a final opinion. There is a contradiction in the central argument of the majority judgement. If the prohibition against making "a law" contrary to the opening words of Article 245 is not effective to prevent an amendment of the constitution contrary to its existing terms, by what process of reasoning does prohibition of the same character in Article 13 (2) have the effect of prohibitory on amendment of Part III? Either no part of the constitution can be amended under the residuary power, or all parts can be amended, for the very reason given by Chief Justice Subba Rao, namely, that a law amending an Article can not be said to be inconsistent with the Article as amended. Since the proposition that no part of the constitution can be amended would be absent in the face of Art 368, it is clear that the whole constitution is amendable.

The question is why majority judges took such a view as to prevent the future abridgement or abrogation of fundamental rights? Justice Hidayatullah said, "In our country amendments so far have been made only with the object of negativing the Supreme Court decisions."[1] To this argument Justice Bachawat correctly replied, "If the Parliament has the power to make the amendments, the choice of making any particular amendment must be left to it. Questions of policy can not be debated in this court. The possibility of abuse of power is not the tests of its existence."[2]

The majority judgement in the *Golaknath case* has raised a number of question : Is the judiciary to function as the third legislature or even as Constituent Assembly? Is the abrogation or abridgment of fundamental rights, in the interest of social advancement, not possible? Does it mean that the constitution as given by the 'people of India' is roadblock to the future progress of the country? Can the Fundamental Rights, added to it as a result of an amendment of the constitution, be not abrogated or abridged by the 'constituted body' which added it?

Every constitution should contain within itself the capacity to respond to changing needs and to new forces of history. With the rapid industrialization of the country, with increasing acceptance of the green revolution, both the urban and rural life is being revolutionized. Modern technology is heralding new social changes. Basically the people are on the path of progress They are impatient because they feel that changes can be faster, their difficulties are not insurmountable. There must be adjustment between the political, social and economic institutions. The necessary social and economic changes in the society can be brought about through the laws and the constitutions.

The constitution should be amended from time to time when its provisions are likely to defect a desired change. A judge of Calcutta High Court has aptly remarked, "A constitution which can not be constitutionally amended is an invitation to revolution. An interpretation which makes constitutional amendment impossible should be resorted to only as the very last resort, when all other interpretation fail unequivocally which was not so in this case.[1] A constitution that can be too easily amended makes for uncertainty and insecurity.[2] The adoption of the whole constitution and the adoption of an amendment to the constitution have much in common. An amendment of the constitution has been aptly described as a constitution in little and the same question arises whether it is by legal process or by revolution. Under our constitution revolution is not the only alternative to change of constitution under Article 368.

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[1] *Ibid* p. 1717.

[2] *Ibid* p. 1725.

The old theory that a judge "declares" the law still exists. He does not make the law. To claim such a power was a claim to an exercise of the powers of a super legislature. It could not be the performance of the constitutional function of judicial review. Nehru had rightly warned against the judicial encroachments. "No Supreme Court and no judiciary can stand in judgement over the sovereign will of Parliament representing the will of the entire community. If we go wrong here and there, it can point it out, but in the ultimate analysis, where the future of the community is concerned, no judiciary can come in the way. And if it comes in the way, ultimately the *whole constitution is a creature of Parliament*......it is obvious that no court, no system of judiciary can function in the nature of a third House, as a kind of Third House of correction. So, it is important that with this limitation the judiciary should function."[3] He wanted the legislature to be supreme in matters of social change. If the judiciary came in the way of social progress there could be two alternative. The one was to amend the constitution and the other was to 'pack' the judiciary with judges committed to an ideology. The latter step was not good. To take away from the Parliament the power to amend the constitution is to open the flood gate of revolution and to invite the overthrow of the very constitution which we seek to safeguard.

We will now examine the question of convening a Constituent Assembly. Do we really need it? Is a total revision of the constitution desirable? An attempt to revise the constitution will throw everything in the melting pot. Fresh debate will start on federation. The present day controversy of the suitability of Presidential form as against Parliamentary form will gain strength. We will allow the head of a number of controversies to come up and it may be beyond our control to prevent those heads being converted into the dragon heads. We have given ourselves a workable constitution. We have more urgent problems to tackle. Self-sufficiency in food, habit of obedience to law, full employment and security of our borders—are the problems which are crying for immediate solution. A minimum code of political morality on the part of all concerned is the basis on which any constitution can successfully work. A revision of the constitution will not recreate the man who are to work it.

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[1] *Golaknath case.*

[2] Mukerji, P.B. : *The Critical Problems of the Indian Constitution* (Bombay : 1968) p. 191.

[3] *CA Deb* Vol. IX, pp. 1195-6.

Our constitution does not need fundamental or basic changes. The demand for the call of Constituent Assembly is not made by any political party. Another question that comes up: who will convene such an Assembly? The Parliament? or the President? If the President is authorized to convene it, then it will mean clothing him with the possibilities of such powers as may convert him into a dictator. The constitution is silent on this issue. The *Golaknath case* judgement, has indicated that the Parliament *could.* Even accepting, for the sake of argument, that the Parliament convene the Assembly, what shall be the basis of representation? It shall surely be universal adult franchise. In that case will it be different from our present Parliament? Will it be vested with any halo, power, authority or mandate higher than our Parliament?

We have to respect the constitution and at the same time the Parliament and the people should have the power to modify it to serve the changing needs of the time as the society undergoes fundamental, structural and other changes leading to a democratic socialist order. If it is found wanting, in some respects, to any national problem of paramount importance and national interest, suitable amendments ought to be made. There is no doubt that the Supreme Court has consistently interpreted the constitution so as to convert it into a citadel of the right to property, while life and liberty still languish in the dark cells of jurisprudence. A way out has to be discovered, not by ending the constitution but by mending the constitution.

Thus revision of the constitution is out of question. A plea has been made, "to take a close and critical look at our constitution by establishing a constitutional Reforms Commission or a study team on constitutional reforms with ample authority, adequate resources and wide terms of reference."[1] It is a good idea but we know the fate of the Commission in this country. Very good reports are submitted only to be kept in the shelves of the library and in the cold storage of the Government of India. This 'new look' as proposed to be studied and provided for by the Commission will not help to ease the situation. The roadblocks created as a result of the *Golaknath case* have to be removed. The Indian society is undergoing radical transformations. Changes are resisted by those who are likely to be affected adversely by those changes. The constitution and the Constitutional philosophy is made a tool of resistance. The Courts are approached. The constitution is interpreted so as to retard the pace of progress. But whenever this happens, a confrontation becomes inevitable. While we would not wish the courts to be guided by popular slogans, we would very much wish our courts to reflect the response to the challenge of our times.

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[1] Reappraisal by L. M. Singhvi, in *Seminar*, Dec. 1970, p. 15.

An unamendable constitution is a contradiction in terms. 'It is,' in words of Mulford 'the worst tyranny of time.' Such a constitution would be, in words of Munro[1], Government by the graveyer's. The doctrine of amendability of a constitution is grounded in the doctrine of the sovereignty of the people and that it has no such implied limitation as it shall not change the protection of the Fundamental Rights. Finer[2] rightly defines the "constitution" as its process of amendment, for in his view, to amend is to deconstitute and reconstitute. Cooley[3] is of the view that changes in the fundamental laws of the state must be indicated by the people themselves. The Nath Pai Bill if passed will start the dialogue between the Parliament and the Supreme Court. If the Supreme Court strike down the provisions of the Bill, as ultra vire, then Article 368 be so amended as to provide that abrogation or abridgment of Fundamental Rights could be possible but its procedure be made more rigid. In case the Parliaments passed by 2/3 majority of each House, a bill to take away or abridge a fundamental right, it should not be deemed to have been passed unless it is accepted by a referendum. The acceptance in the referendum will mean that majority of the votes cast in the states and the majority of the states vote for it. This would meet the ends of justice and the stamp of approval by the people. It should be provided in the amendment of Article 368, that an amendment, after its acceptance through referendum, shall not be justiciable.

A survey of the Election Manifestoes of the different All India parties, issued at the time of the election to the fifth Lok Sabha, clearly indicates that the parties of the Right—Congress (O) and Swatantra—stand for the sanctity of the constitution and desire no change. The parties of the Centre—Jan Sangh, or left of centre—Congress (R) and Praja Socialist Party, would wish the constitution to be suitably amended. P. S. P. and Jan Sangh propose the appointment of a commission to suggest suitable amendment. Congress (R) will seek constitutional remedies and amendments for overcoming the impediments in the path of Social Justice. The extreme left—CPM will wish the constitution to go 'lock, stock and barrel; while CPI stands to radically change the constitution. The SSP would wish to convene a Constituent Assembly to reframe the Constitution of India. Thus the commitment of the parties are more for amendments of the constitution than the revision or rewriting of the constitution.

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[1] *The Government of United States*, 5th Edition, p. 74.

[2] *The Theory and Practice of Modern Government*, p. 238.

[3] *Constitutional Law*, p. 37.

Agra University Journal of Research (Letters),
Vol. XVIII, Pt. II, July, 1970.
Pages 53—96

AN APPRAISAL OF GRANTS-IN-AID TO VOLUNTARY AGENCIES IN UTTAR PRADESH

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A—GRANTS FROM THE DIRECTORATE OF SOCIAL WELFARE 1955 to 1961

During the period under review the Grants-in-Aid programme of the Social Welfare Department did not have any specific guidelines or regulations. Only in the year 1960, '*U.P. Grants to Social Welfare Institutions and Organisations Rules, 1960*' were formulated. It is interesting to note that in 1956, the Minister, Secretary-cum-Director, Social Welfare, Additional Secretary, Social Welfare, a Deputy Director, and two Assistant Social Welfare Officers of the Department of Social Welfare, U.P., attended the ninth session of the Indian Conference of Social work, held at Jaipur, where the voluntary as well as governmental welfare agencies representatives had deliberated on the question of financing voluntary welfare agencies. The *Sub-Committee for 'Principles of Grants-in-Aid'*, of this session of the Conference had also made some important recommendations regarding the management and administration of grants-in-aid programme. Official participation and expert recommendation does not, however, seem to have had any immediate impact on the administration of the grants-in-aid programme for Social Welfare in Uttar Pradesh. Till 1960, the social welfare grants continued to be, as other government activity in general, guided by the U.P. Education Code and the U.P. Financial Handbook; the State did not spell out its principles for guiding the administration in the selection of agencies for grants, in prescribing the terms and conditions of grants and in fixing ceilings of amounts grantable, and in regulating the nature of grants.

Grants-in-aid from 1961 onwards

The *U.P. Grants to Social Welfare Institutions and Organisations Rules*, 1960, came into operation in 1961 and were soon modified in 1963. By this time the *Grants-In-Aid Code Committee* (1961) had submitted its guidelines to the Central Social Welfare Board; these had also been indicated much earlier by the *Study Team on Social Welfare and Welfare of Backward Classes* (1959). However, the revised *Rules* framed by the State government do not seem to have drawn any help from the above useful documents. The *Grants-In-Aid Code Committee*, of the

Central Social Welfare Board had formulated its proposals only after eliciting opinions from State officials. On account of its wide contacts with the people at large the *Committee* had advocated a developing policy and programme to meet the growing needs of the people for welfare services and it had hoped that "the work (framing of the *Rules* or *Code* for grants to welfare agencies) it has done may prove of some value and assistance to the welfare, educational and cultural departments of the Central, State and Local governments in their disbursement of grants to voluntary agencies" (1961, 63). However, the State of Uttar Pradesh, had not taken advantage of this in evolving a definitive policy, uniform pattern and set of principles and standards of agency performance and institutional care that could steer one of its major programmes—the grants-in aid programme on sound lines.

The Evaluation Committee on Social Welfare, Uttar Pradesh (1961) was also critical of the grants-in-aid programme of the State's welfare department. It decried the lack of policy with regard to the proper categorization of agencies eligible for grants, and also disapproved the practice of sanctioning grants on an ad-hoc basis. Hence, it made two important recommendations in this respect: firstly, it observed that instead of sanctioning grants on ad-hoc basis to various categories of institutions and organisations entitled to assistance from funds allocated for social welfare, the grants should be made after considerable planning so as to make it purposive and effective, secondly, it laid down that after the types of institutions to be served have been properly determined, a careful system of priorities for financial assistance should be drawn up (1961, 56). The *Committee* suggested seven categories of agencies for the purpose of grants and also indicated priorities in this respect.

Formulation of a Code

The *Evaluation Committee* also realized that in the absence of any 'Code' for the administration of grants-in-aid in social welfare, there is a likelihood of unplanned and uncoordinated programming of grants-in-aid. Thus, it recommended that a *Code* on the lines of the U. P. Education Code should be framed for the social welfare institutions receiving grants-in-aid (*Ibid.*, 57). It seems that the *Committee* was either ignorant of the work already done by *Grants-in-Aid Code Committee*, or it consciously avoided recommending the adoption of the *rules* framed by the said committee. In any case, the government, does not appear to have been aware of the work of any of the above two committees even at the time of revision of the U.P. Grants to Social Welfare Institutions and Organisations Rules in 1963, for the suggestions of the *Evaluation Committee* or the *Code Committee* have not found any place in the above mentioned 'Rules'.

Secular character of the Agencies

The *sub-committee for 'Principles of Grants-in-Aid'* (ICSW, 1956) had recommended that grants should be made available only to *non-Sectarian* institutions. The *Evaluation Committee* (U.P.) also opined that the institutions having a denominational character should be debarred from receiving any grants whatsoever (1961, 57). The Department of Social Welfare, U.P., has not yet taken any step to embody in its set of rules such an important recommendation. This is indicative of the lack of policy and indecision on the part of the government. In fact, it is only in the 'Application Form' for grants that the applicant institution has to indicate whether or not it is open to the public irrespective of caste, class and colour; this information, however, did not seem to have ever affected the decisions of the government while disbursing grants. A similar situation obtains in the field of Education too. Grants are given to sectarian, denominational, and caste-nymic institutions. But in the educational institutions facilities of education are, by and large, extended to one and all irrespective of caste or religion; favouritism and partisan attitude is limited only to the constitution of managing committees, appointments of teachers and extending other facilities to the students of one's own caste or religion. Although the non-congress government in Uttar Pradesh (SVD government) in 1967-68 made it obligatory for the grant-receiving educational institutions to abolish the caste-names and change the constitutions accordingly. Not much has been achieved by this measure, yet a modest beginning has been made to secularize the educational institutions. In Social Welfare, where the criteria of caste, religion or sect are also harmful to our national objectives than in any other sphere, the State government has not adhered to the principles of non-sectarianism and secularism.

Unplanned Development of Voluntary Social Welfare

The main purpose of grants-in-aid programme as envisaged by the various committees—*sub-committee of the ICSW* (1956), *Study Team on Social Welfare* (1959), *Grants-in-Aid Code Committee* (1961), and *Evaluation Committee on Social Welfare*, U.P. (1961), is to develop the voluntary sector in Social Welfare in a planned manner. The *Evaluation Committee*, apart from selecting specific institutions for development, also visualized planned development of existing institutions on a regional basis with a greater emphasis on institutions specializing in specific social fields (1961, 57). This meant avoidance of concentration of service-agencies in certain areas by neglecting other unserved regions. However, such imbalances still exist. The State-aided agencies are largely located in the KAVAL towns (Kanpur, Allahabad, Varanasi, Agra, Lucknow) and Class I cities of the State. Smaller towns, undeveloped hilly and plateau regions and the eastern zone of the State are scantily served by this programme (Table 12 of irregularities).

Standards of Agency Performance and Institutional Care—A Case

Adequate attention has been paid to this aspect by the *Grants-in-Aid Code Committee*. Standards with regard to the (i) Welfare Service, (ii) Premises where the service is rendered or a welfare programme is conducted, (iii) Personnel employed to render the service, (iv) General administration of the agency or institution, (v) Procedures of administration, etc., have been laid down by this *Committee* (1961, 23). The *Evaluation Committee* also observed that "....the department should carry out a detailed survey of the needs of these institutions in respect of their requirements for buildings, equipment, trained staff and the development of their standard in general...." (1961, 57). The committee also tried to evaluate the standards existing in voluntary institutions for the blind and the deaf and dumb, for example, while reviewing the conditions prevailing in the voluntary institutions for the *blind* the *Evaluation Committee* observed : "Most of these institutions receive financial assistance from the Government from the lump sum annual provision of about Rs. 90,000 in the budget of the Social Welfare Department for sanction of grants-in-aid to institutions for the physically handicapped. Almost all these institutions have sprung up through the philanthrophy of local people and voluntary social welfare agencies without any plan or coordinated effort. What is regrettable is that the educational standards of these institutions are mostly unsatisfactory. They suffer from a lack or even the complete absence of trained teachers, a paucity of Braille text-books, scarcity of special apparatus and absence of a properly planned curriculum". The *Committee* wass trongly of the opinion that "instead of encouraging the mush-room growth of ill equipped institutions in this specialized sphere, the personnel and financial resources of Government and the voluntary agencies should be pooled together to build up at least one model institution for the blind in each of the 10 old revenue divisions of the State" (1961, 41).

No such attempt has been made yet by the Department. Till 1958-59 grants to the institutions for the education, training and rehabilitation of the physically handicapped (including institutions for the care of orthopaedic and leprosy patients) were given for 'General maintenance' or to meet the 'Deficiency in the budget'. Large sums were given as 'Sholarships' or aid to the handicapped students and trainees. (Tables 1, 2, 3, also annual Reports of the Department). In 1959-60 the *number of grants* to such institutions (including teachers training school for the teachers of the deaf and dumb) totalled fortyone; as many as nineteen such agencies e.g., deaf and dumb schools, blind Schools, asylums, deaf and dumb teachers' training school and U.P. Association for the Blind, got grants. However, the *purposes* for which the grants were given were stated as : *'General maintenance'*, *'Meeting the deficiency of the budget of the institution'* and *'Maintenance of inmates'*. (Table 4). Similarly in 1961-62 (Table 6), 1962-63 (*Annual Report*) the same situation continued and the recommendations of the *Evaluation Committee* above cited have not been paid heed to.

In the case of voluntary institutions for the deaf and dumb (as also for the blind persons), the *Evaluation Committee* had recommended a comprehensive survey by the Department to assess the requirements of these institutions both in respect of buildings, technical equipment and trained staff. It also harped on the need of drafting a Five-Year Plan for the development of these institutions into model institutions and vocational training centres for the blind, and the deaf and dumb. A proper plan of 'graduated financial assistance' and constant watch over the year-to-year progress of these institutions was also emphasised by this Evaluation Committee (1961, 42, 46). The department has not also taken steps so far either in conducting the required survey, or in the preparation of the desired plan, or even in the programming of the graduated financial assistance, supervision and counselling for the development of these institutions. The grants to these institutions, given after 1961, do not also show any such policy-decision of the government.

Staff development of the Institutional (Residential) and Non-Institutional (Non-Residential) Agencies.

The grants-in-aid to the voluntary agencies did not help the *staff development* of the voluntary agencies or institutions of the State. Almost from every corner a concern has been shown for the 'unorganised and unscientific' services rendered by these agencies in the country. Grants for the purpose of employing trained workers by the voluntary agencies have been unequivocally recommended from all forums including the *Seminar on Social Administration in Developing Countries* (1964). The *Evaluation Committee* (U.P.), categorically supported the idea of manning voluntary services by trained personnel and recommended loaning the services of the government servants of the Social Welfare cadre, to the voluntary social welfare agencies of the State in the form of 'grants-in-aid' (1961, 9). For the training of the 'field workers' the committee recommended that "at least a six months" course be initiated at the different Schools of Social Work in conjunction with the Directorate of Social Welfare. Private social agencies receiving grants-in-aid from the Government should depute their personnel for such training". Besides the six months' training course, seminars and training camps of 1 to 3 week's duration for the training of voluntary workers in specified subjects were also recommended by the Committee (*Ibid.*, 1961, 22). However, only in 1960-61 the Gandhi Smarak Nidhi, Rajghat, was given grants for the appointment of a social worker on Rs. 100/- p.m. to do social work in the Lepers' Colony. This is the solitary instance specifying the purpose of grants for employing social worker (Table 5). Another grant given to the Kamla Nehru Hospital, Allahabad, for the establishment of a centre for Social Workers does not specifically show an intention on the part of the government that medical social workers should be trained or employed by the hospital.

The J. K. Institute of Sociology and Human Relations, Lucknow University, was given grants of Rs. 14,000/- and Rs. 12,500/- in the years 1955-56 and 1957-58 respectively, for conducting short-term training courses of voluntary social workers (Table 12). The trainees for these courses were recommended by the District (Asstt.) Social Welfare Officers. Most of these trainees did not belong to the services of even the grant-receiving voluntary agencies of the State. Some of these trainees were later on absorbed, as Honorary Social Workers for a few months, in the 'Samaj Kalyan Samiti Scheme' of the Government. Hence, in the absence of any definite policy and lack of adequate conditions attached to the grants given to voluntary agencies, the administrative and the technical welfare service-cadre of these voluntary agencies could not be benefited by such a training programme in any substantial manner. A large number of agencies were given grants for conducting seminars, conferences and sociol workers' meets; the Bharat Sewak

Samaj (1957-58)-(Table-2), U.P. Bureau of Child Welfare and Research, Lucknow (1960-61, Table-5), Indian Conference of Social Work, U. P. State Branch, (1955-56, Table 12), were given grants for seminars; conference etc. No evaluation whatsoever, has been done by the government as to the effect of these seminars etc., in improving the administration and standards of services of the voluntary welfare work in the State.

Recognition, Licensing and Registration

The requirement for eligibility of grants in this respect is the registration of the agency or institution under the Societies Registration Act, 1860 (Act No. XXI of 1860). Rule 4, of *The U. P. Grants to Social Welfare Institutions and Organisations Rules, 1960* provides that the institution or its parent body should be either registered under the said Act, or undertake to get itself registered within a period of one year from the date of payment of the grant. Before 1960, no such specific condition was laid by the Government for the payment of grants. The *Evaluation Committee* (1961) had also suggested a '*system of proper recognition*' *of voluntary institutions* for the deaf and the blind on the pattern of the *recognition of educational institutions* as provided in the U. P. Education Code. The *Committee* suggested that such a system "should be worked out in consultation with the State Education Department". The *Committee* also recommended that "the standardization of the syllabus for the Government Schools for the Deaf and Dumb should also apply to institutions started in private sector (*Ibid.*, 46). Such an attempt has not been made by the State.

While prescribing the standards for the voluntary agencies the *Grants-in-Aid Code Committee* also envisaged registration and recognition of agencies by the State through some special legal instrument. In respect of a non-institutional agency, the criteria for '*Recognition*' should be its '*recognised community service*'.

The State of Uttar Pradesh, as far back as 1956, i.e. even prior to the *Code-Committee* recommendations, took a leading step in controlling and licensing the women and children institutions so as to improve their standards of institutional care. The *U.P. Women's and Children's Institutions Control Act, 1956*, envisages licensing of residential institutions for women and children on the basis of minimum prescribed standards of administration, management and institutional care. Such provision in respect of other types of voluntary agencies and institutions is a long felt need.

Quantum of Financial Assistance

There is a divergence of opinion about this aspect of grants-in-aid programme. The *Evaluation Committee* envisages that the quantum of financial assistance to certain institutions may be extended upto 75 per cent of their annual expenditure. The balance contribution of 25 per cent may be made good by the institution either in cash, kind, or in the form of services (1961, 57). This recommendation of the *Committee* cannot be considered practical, since it neglects the basic ideology of 'voluntaryism', and may encourage increasing dependence of such agencies on the State. This may also give ample scope to the voluntary agencies for manipulation in accounts, with the aim of seeking '100 per cent grants' from the State exchequer. Similar experiments in a number of 'Gandhian institutions', supported by the Khadi and Village Industries Commission, educational institutions in the rural areas, particularly the adult education schemes etc., supported by the Departments of Education, and Planning, have led to corruption, inaction, and faithlessness, thus ruining the very foundations of the respective programmes. In fact, the only correct step in this respect is to survey the needs of the agencies before launching the grants-in-aid programme, and deciding the principle of grants as also the quantum of financial assistance for various categories of agencies.

B—Administrative Lag and Procedural Lacunae

Delays

The release of the grant by the department are delayed, for which the department has no explanation to offer. The officers at the Directorate level only blame the clerks and unusual delays at the Secretariat level. The red-tape, no doubt, is responsible for such delays at the District, Directorate, and the Secretariat levels. This is a cause of great hardships to the voluntary agencies which bank on grant-funds. The *Evaluation Committee* noticed that grants are generally released to the institutions towards the close of the financial year. Our study reveals that the grants are actually disbursed in the months of June or July, of the next financial year. This difficulty could be overcome by decentralizing the administration of grants-in-aid, i.e., by delegating powers of actual sanction and disbursement by the Government to the Director of Social Welfare and also to the District officers and/or local welfare committees. This may be done easily for sanctioning grants of limited amounts and grants of both general and specific types. This may help in checking the misutilization of grants, or their refund on account of non-utilization, by the agencies.

Administration and Coordination

The *Evaluation Committee* thought it desirable that "representatives of the different institutions or departments making grants-in-aid available for social welfare should form themselves into a Board...." (1961, 55). This could also be affected at the *Regional* or the *District* level to take speedy decisions about grants-in-aid. Such a committee, though only advisory in nature, exists for deciding grants for educational and developmental purpose for the Scheduled Castes and Backward Classes. There is clearly a need for evolving a similar machinery in other welfare matters delegating more powers in this respect to the officers in immediate control.

Forms and Certificates

There are a number of 'Forms', statements and certificates which an agency has to fill and furnish to the granting authority, for example, the Form of application for grants-in-aid, Form of agreement, C. C. Form (Statement of the institution with regard to grants-in-aid received from other sources) ASR Form—Assurance Certificate regarding the utilization of grants, Utilization certificate; these forms and statements are simple enough to fill and complete. Hence, the objections raised by voluntary agencies in this respect are untenable. Our observations substantiate the views of the inspecting or visiting officers (Harijan and Social Welfare Officers, Inspectors appointed in the department, Auditors etc.) that the voluntary agencies are handicapped in this respect by the absence of any functional administrative structure existing in the agencies and thus, callous in filling up of any of these forms, and fulfilling faithfully the conditions laid therein.

Audit

Rule 9, of the *U. P. Grants to Social Welfare Institutions and Organisations Rules* 1960 provides for the audit of accounts of the institutions receiving grants by the Examiner, Local Fund Accounts, Uttar Pradesh. According to *Rule 10*, the grants of a *Capital* nature and for specific purposes, whether recurring or non-recurring, and irrespective of the amount, are subject to audit by the Controller and Auditor General of India, at his discretion. Such an audit is seldom done. The accounts submitted by the agencies and the audited statements sent by them (Specimen from one such agency is given in Appendices I and II respectively), are thoroughly unsatisfactory, and infact need proper scrutiny and rigorous controls. Our observations of the functioning of the government's District Welfare Offices show a general slackening and apathy in this respect. Accounts, by and large, are ill maintained and scantily scrutinized.

Although the *Evaluation Committee* realized the need for evolving "a common audit system applicable to the audit of grants sanctioned by the Department of Social Welfare and other sources, the *Committee*, however, felt that such an "audit could be entrusted either to the Examiner, Local Fund Accounts, or to a panel of auditors drawn from the Government Audit Department or Commercial firms" (1961, 56-57). Such an arrangement may help in relieving the so called botheration of the voluntary agencies but cannot absolve them from the responsibility of maintaining proper accounts, stock registers, audited statements of the internal auditors or the chartered accountants. It should be an endeavour of the grants-in aid programme to help the agencies to develop healthy administrative practices in this respect. Precisely, the administration should be more strict to enforce these requirements. Instead, it was noticed that 167 institutions were defaulters and had not complied with the stipulated conditions till 1963. The grants in question involved a huge sum of Rs. 3, 18, 810 (Table 12). Still further, grants continued to be sanctioned and disbursed to them. Such practices are detrimental both to the growth of healthy practices in the voluntary agencies, and the prestige of the State.

THE ADMINISTRATION OF GRANTS AND THE ROLE OF THE DISTRICT OFFICERS

Status and Role

The District Harijan and Social Welfare Officer acts as the 'clearing agency' for the application forms, ASR form, Utilization, certificates etc. His role is *theoretically* visualized as that of a consultant and adviser to the voluntary agencies but there is no supporting administrative structure, or clearly defined status assigned to these officers to discharge this role properly. They are supposed to inspect the agencies and send their recommendations to the Director. Since, there are no objective criteria evolved for sanctioning or withholding grants, these recommendations are not of much value. Some of them even complained that there have been cases in which even their adverse remarks have been ignored, and grants were sanctioned over and above their negative recommendations.

Political Considerations

The District-level officers were of the view that quite a good number of bogus agencies have come up in the big cities, especially the KAVAL towns, which clamour for grants; also the old denominational social agencies are more interested in obtaining grants from different sources than in making innovations or improvements in their method of services and administration. It was sometimes practically impossible to counteract or disprove their nebulous claims due to local political pressures. The officers were of the opinion that there must be a system of confidential reports of agency policies and performance.

Problems

The District Social Welfare Officers were not very clear about the type of grants given by the department, and the purpose for which such grants should be used. *General maintenance* grants offered a convenient cover for malpractices. Institutions find it convenient in such cases of unspecified grants to show a 'matching grant' either in cash, or kind or services and justify the expenditure on general maintenance. This expenditure may not be related to any aspect of 'Welfare' whatsoever. One of the institutions, in a big city, submitted accounts of expenditure out of the government grants where the items of expenditure included lime, dustcoal, wages to the masons, wages to the carpenter, etc.[1]

One of the officers said that he had made a reference to the Government seeking clarification regarding the exact nature and definition of 'General maintenance grants'. However, the reply of the government was evasive; the government in its reply said: "General maintenance grants are self explanatory and do not need a clarification". In such circumstances, the certification of the officers is also vague, thus defeating the very purpose of the grants-in-aid programme.

Inspection

An inspection of the institution or organisation is done by the Social Welfare Officer before recommending the grant. In the initial inspection the following aspects are ascertained: (a) Registration, (b) building facilities, (c) constitution and the managing body, (d) maintenance of inmates/programmes of the organisation. The routine inspection is concerned with: (a) Accounts and records, (b) stocks, (c) audit and the utilization of the previous grants. But again, it was a general feeling that this 'inspection' has no executive or legal validity. An officer complained that an institution under his jurisdiction had not followed the instructions regarding the maintenance of stock registers and other documents. He felt helpless since he had no executive power to compel that institution to follow his instructions. It was noticed that grants continued to be recommended and awarded to that institution.

Lack of Adequate Control on Funds and Accounts

The Examiner, Local Funds Accounts, U.P., had not audited the funds of many agencies even once. In the absence of any set procedures the officers at the district level were not sure of their role; infact they were not expected to act as 'auditors'. For instance, in a district an institution which was considered to be one of the best institutions, had no provision for audit of its accounts through established agencies like, chartered accountants, etc.; instead the audit was done by a superior church authority. The audited report of income and expenditure submitted to the District Social Welfare Office was very sketchy and unsatisfactory (Appendix I). In such cases the social welfare officers were at a loss to define their position *vis-a-vis* the agency and the Government.

Irregularities in Grants

The officers felt helpless in respect of irregularities committed by the agencies because they did not have any punitive powers. Most of the big agencies spent 90% of the grant-money on staff, establishment, stationery, postage, entertainment, conveyance, etc. Interviews with the officials revealed that some of the State branches of the 'National Social Welfare Agencies', viz. Bharat Sewak Samaj, U.P. Crime Prevention Society, etc., had even paid their share to national bodies due on these branches out of these grants. The officers complained that they have not got any clear instructions regarding the approved items of expenditure. Thus it is evident that lack of clear-cut formulation of policy and assignment of powers of enforcement have rendered the officers helpless.

They were sour not only because they had no executive powers, but also because even advisory and consultative or counsellor's role was not assigned to them. It was due to the 'aimlessness' of the programme itself. Some of them strongly felt that their office is a 'clearing house', and their job is purely non-technical. One of them aptly remarked that 'any department, if it does not have a technical duty to perform, or some specific function of its own, need not be maintained'. In their opinion, even a non-technical person could do the work which was presently done by the District Harijan and Social Welfare Officers (DHSWOs). No mechanism was thus far evolved to use their professional training in social work and/or experience in administration as such.

In fact the role of the DHSWO should be reorganized on the pattern of the District Inspector of Schools. This would be possible only when the system of *recognition*, *licensing*, employment of trained personnel, and minimum standards of agency performance and institutional care are adopted by the State for the purpose of administration of the grants-in-aid in the field of Social Welfare.

Trained Personnel in Voluntary Agencies

The officers were of the opinion that the existing standards of the institutions can improve only when whole-time trained social workers administer them with a scientific outlook and professional acumen. An Act, similar to the Factories Act, making it compulsory to employ trained social workers by the voluntary agencies and institutions receiving grants-in-aid needs to be enacted by the government. Provisions (non-statutory) of this nature do exist in the Educational Institutions aided by the State; to become eligible for grants on a permanent basis the educational institutions have to employ trained teachers. If the passing of an Act is not feasible, the Social Welfare Department can at least make it a pre-condition for grants to employ trained social workers.

The officers complained that due to lack of 'Refresher Courses' they were also not well-up and were not in the know of the recommendations of various committees, or advancements made in the profession. The *Evaluation Committee* report was not widely circulated even in the department hence many of the new hands recruited in the department had no knowledge thereof its important observations and recommendations.

Improving Funds of the Agencies

Before concluding this paper, it is desirable to examine the possibilities of improving the funds of the voluntary agencies so as to husband the resources of the voluntary agencies, saving them from dependance on the State assistance for minor projects on the one hand and obviating the Government's unproductive expenditure on the other. 'Fund-raising' is now a specialised skill which should be a part and parcel of the training of welfare administrators seeking employment in voluntary agencies. This task of adequately training welfare administrators has to be shouldered by our Schools of Social Work.

Another possibility of channelising private charities at the local level through 'coordinating councils' or 'community chests', has not been explored. In pursuance of this aim Uttar Pradesh government presumably started the scheme of 'Samaj Kalyan Samities', but the scheme was not given a fair trial. The State, and for that matter the District Welfare Officers, have to assume a leading role in achieving coordination at the city/district level. For such coordination to succeed, there is need for: (1) Statistical and Research Wing, (ii) Coordination cell, and (iii) Counselling Bureau at the headquarters as well as at the District level. In U.P. a coordination cell was created at the Directorate level; but it does not exist now. There has been no Counselling Bureau at all for the proper direction of welfare programmes at any level whatsoever.

A rethinking of the grants-in-aid programme, in the light of above discussion, is also essential. Almost all the officers (who were interviewed) felt that in certain cases, for specific programmes, the government should give *loans* and *subsidies* instead of a recurring or non-recurring grants. This could be started experimentally in cases like production centres, etc. This may prove helpful in boosting voluntary effort and may steer clear of the dampening effect of 'grants' which are taken to be another form of 'charity', 'impersonal donation' or a 'political favour' by the government in power. It is an accepted axiom that in no circumstances the initiative to finance the voluntary welfare programmes through 'community support' be allowed to be killed.

Religious Endowments and Charity Trusts

The first Conference of social workers called by the Minister of Social Welfare, Uttar Pradesh in 1956 deliberated on the question of channelising the incomes of private charities, temples etc., for welfare work. The Indian Conference of Social Work, in 1954 had earlier recommended that "an All-India Act should be enacted for better administration of various religious endowments and charitable institutions, integrating all Central and State Acts on the subject. The Act should give powers to various State governments to make suitable rules and bye-laws to meet local needs and conditions" (1958, 303). Pursuant to this, the general consensus of opinion at the conference of social workers called by Minister of Social Welfare, U.P., tended towards more State control including the control of the incomes and administration of temples also.

The government of Uttar Pradesh was seized with this problem from 1949. A special officer was appointed by the government to collect important statistics regarding income of temples having more than an annual income of Rs. 1,200/-. The report of the special officer about the state of affairs prevailing in these temples was damaging (Annual Report, 1955-56, 10). The income accruing from the temples was mismanaged and spent in unproductive and unwholesome ventures. To improve the existing malady the State Government drafted a bill, the *U.P. Temples and Religious Endowments (Administration) Bill, 1955.* This seems to have been shelved later on. No reference about it is available in the subsequent Annual Reports of the Department of Social Welfare or the Statute book of U.P.

The *Seminar on Social Administration in Developing Countries*, held through March 16-21, 1964 at the India International Centre, New Delhi, also observed: "There are a large number of charity trusts and religious endowments which have large funds, properties and grounds. Not all their income is utilized for the charitable or religious purpose of the trusts, and surplus incomes accumulate to inflate the corpus. It is therefore necessary to see that both surplus income and the income of idle trusts are utilized for providing social services for the all-round betterment of the conditions of the community. The legislation should therefore be given liberal interpretation, suitable to the progressive spirit of the times. Inventories of all such endowments need to be made for the above purpose" (1964, 8). The voluntary agencies, instead of leaning heavily on the State support, should create public opinion in favour of the above measure, and lobby at the level of the legislature for the achievement of the desired end, i.e. a Central Act, so that the incomes of the otherwise inactive sources could be activated for the good of the people. By doing so the agencies would be fighting against evil and superstition and also explore new avenues of their finances.

International Aid

The *Seminar* also recommended that "International Aid should be made available on a larger scale than hitherto to voluntary agencies. Appropriate machinery should be evolved for consultation of voluntary agencies while negotiating for such aid" (*Ibid.*, 9). International aid has a number of political and other considerations. This proposal needs to be considered with care and caution. The International aid to the national branches of a world organisation *viz.* Red Cross etc. stands on a different footing. Generally such an aid to other institutions/agencies is neither needed nor desirable in the wider national interests. Many agencies receiving such aid in the State (for example many district branches of Bharat Sewak Samaj, Balkanji Bari, Council of Child Welfare) have not used it in a befitting manner. If at all it is considered desirable to avail of such aid, it should be negotiated, channelized and administered through the government, and never by the agencies themselves directly. In many of the developing countries of Asia and Africa, International aid has proved injurious to the development of voluntary welfare based on a frame work of national ideals and interests.

CONCLUSION

To summarise, the foregoing analysis and appraisal of the grants-in-aid programme of the U.P. State Government shows that the grants-in-aid programme had been administered without any specific rules prior to 1960. In the post 1960 period *U.P. Grants to Social Welfare Institutions and Organisations Rules (1960)* did not direct the programme towards any specific major policy goal in this respect.

The programme did not change substantially even after the adverse comments of the *Evaluation Committee*, 1961. The revised rules of Grants (1963) did not incorporate the recommendations of the *Evaluation Committee*, either with regard to policy content, or in respect of recognition of institutions for physically handicapped, or the standards of institutional care and agency performance in general.

The grants-in-aid programme of the State government has hitherto remained unaffected by the observations of either the *Indian Conference of Social Work* (1954, 1956, 1957) or the recommendations of *Study Team on Social Welfare and Welfare of Backward Classes* (1959), or the guidelines of the *Grants-In-Aid Code Committee* (1961), in respect of principles and purpose of grants in-aid. Neither the State officials nor the District officers could spell out the principles and purpose of the existing grants-in-aid programme of the government.

Owing to the lack of policy, purpose and principles of grants-in-aid programme, of the Government, the grants as such could not substantially affect either the performance of voluntary agencies, or even improve their administrative set-up. It has thus failed to direct voluntary effort in a scientific manner. It was largely due to the non-specification of objectives in the fabric of grants-programme.

The State had been giving grants, till 1966, to all kinds of agencies, from pre-primary schools to physical-culture institutes, from handicraft training centres to training-cum-production centres, from agencies in the rural areas to the agencies run by the most sophisticated 'Lionettes' of the capital. This indicates indecision on the part of the State with regard to delineating the areas for help, and precisely defining 'Social Welfare' as such.

The nature of welfare work promoted through the grants-in-aid of the State Government included medical aid, children's recreation, adult education, handicapped education and training, research, publication of literature, seminars, conferences, handicraft training, art education, maintenance of widows and orphans, montessori and nursery education, games and sports, welfare of 'Sadhus' (mendicants), welfare of leprosy patients, education of girls, promotion of Ayurveda treatment, Youth camps, etc. This too, is indicative of 'aimlessness' of the programme as such. For example, the agencies receiving substantial grants were not working scientifically for the urban family welfare or urban community organisation in the strict technical sense. Important services *viz.* youth work and services for the aged were not developed. No attempt was made to develop Case work or Group work agencies in a scientific manner, since no grants were given for staff development of any agency.

The existing administrative structure, administering the programme both at the District and the State levels has proved 'dysfunctional'. It has neither improved the quality of services nor checked the mismanagement of grants by the welfare agencies. Lack of coordination, absence of a counselling bureau, want of adequate data regarding the needs of the voluntary agencies due to non-existence of the Research and Statistical Wing, have made the programme obsolescent for the development of voluntary effort. It has, no doubt, led to the multiplication of grant-seeking agencies in the State (See, Tables 1, 2, 3, 4), in all the fields of social welfare.

The procedures followed for the award of grants to agencies—forms, certificates, statements are not complicated; however, the procedure followed by the government are time-consuming, bureaucratic, obliquitous and obreptitious. *Delegation of authority* has never been tried; the District officers do not get job-satisfaction from what they do at the investigation/inspectional stage. The hierarchy of the Inspector [appointed under the U.P. Women's and Children's Institutions (Control) Act, 1956] at the field level and the

Secretary to the Government at the apex is not fashioned to fulfil the objectives of Social Welfare Administration. The hierarchical distance between the rungs of the ladder prevents the sharing of the field experiences by the 'policy-makers' leading to gaps between the policy and its actual execution through various programmes. Such a distance between the highly placed Secretary or the Director and the lowly placed field worker is difficult to abridge in the existing administrative system.

The government has not seriously attempted to associate persons of integrity, people experienced in welfare work, representatives of various 'interest groups', 'client groups' *i.e.*, 'phantom public' and trained social workers and social scientists, at the 'local' (city or district) level for functioning as a lever and link between various agencies and the department at the District head-quarter and/or between the Government and the lay-public. The *Samaj Kalyan Samiti* scheme is dormant. It should be revitalized, and revived with a changed perspective.

In brief, it may be said that the State's grants-in-aid programme needs to be rephased with a new progressive policy, uniform pattern, meaningful purpose, and broader perspective and principles so as to make it a helpful instrument in the progress of the people of the State within the frame work of our declared national objectives of democratic secularism, equality, and social and economic justice.

1956-57

TABLE 1

Grants in-Aid to Voluntary Agencies[2]

Sl. No.	Type of Agency (Identity by name)	Number of agencies
	Homes	
1	Hindu	29
2	Muslim	12
3	Christian	3
4	Secular	16
	Non-Residential	
5	Secular	7
6	Sectarian	4
	Others	
7	Schools (Junior, Nursery, Montessory etc.)	2
8	Hospitals	0
9	Handicraft Training: (Training and/or Production centres)	7
10	Adult Education	1

Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range Lower Rs.	Range Upper Rs.	Remarks
1	General Maintenance	46	62,500	500	5,000	(i) Grants were given to an institution for more than one purpose.
2	Maintenance of Inmates	1	3,000	...	...	
3	Equipment	20	39,400	900	5,000	(ii) Grants for construction of building were given to libraries and reading rooms.
4	Raw Material	1	1,800	...	...	
5	Building (Extension, improvement, repairs etc.)	14	57,500	1,000	10,000	(iii) A Lump sum of Rs. 20,000/- was given to an agency at Kanpur to start training in clay modelling and tailoring to ex-beggars.
6	Furniture	1	2,000	...	...	
7	Water supply/Sanitation/Light etc.	Nil	Nil	...	...	(iv) Agencies like the *Geeta Ashram*, Lucknow and *Indian Academy of World Culture*, were given grants for 'consolidation of welfare Programmes':
8	Educational Material/ School material	Nil	Nil	...	...	
9	Medicines/Hospital material	Nil	Nil	...	...	
10	General Programme/of welfare, adult literacy etc.	4	5,500	500	2,000	(v) In the supplementary grant Rs. 49,500 were given to 42 agencies for *General Maintenance*.

1956-57

TABLE 1—(*Contd.*)

Grants-in-Aid to Voluntary Agencies.

Sl. No.	Type of Agency (Identity by name)	Number of agencies	Sl.No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range		Remarks
							Lower Rs.	Upper Rs.	
	Handicapped		11	For New Homes/New Schemes	2	23,000	3,000	20,000	(vi) Infact only 25 new agencies (7 Hindu, 8 Muslim, 3 Christian, 4 Secular, 2 non-residenial and 1 of the Handicapped (Madarsa Nabina: Negina) were included.
11	Education of Handicapped (Rehabilitation included).	2	12	Physically Handicapped/material/equipment/Aids	(Grants given for General maintenance)				
12	Training of Teachers for Handicapped.	0	13	Seminar/Conference/Research	Nil	Nil	Nil	Nil	(vii) Total Agencies which received grants thus were 58.
	Professional		14	Recreational Material	(Grants given for educational and recreational material)				
13	Professional Social Work Organizations *All India/State*	0	15	Youth programmes/Welfare Camps/Stipend/Hostel etc.	Nil	Nil	Nil	Nil	
14	All India/State S.W.Org.	0	16	Recurring/Not specified	Nil	Nil	Nil	Nil	
	Total	83							
	Actual	58				1,94,700			

1957-58

TABLE 2

Grants-in-Aid to Voluntary Agencies[3]

Sl. No.	Type of Agency (Identity by name)	Number of agencies	Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)		Remarks
							Lower	Upper	
	Homes								
1	Hindu	32	1	General Maintenance	62	73,800	500	6,000	(i) Grants were given to an institution for more than *one* purpose.
2	Muslim	12	2	Maintenance of Inmates	11	19,540	500	5,040	
3	Christian	4	3	Equipment	28	28,750	200	3,000	(ii) In all there were 71 institutions which could be identified.
4	Secular	14	4	Raw material	1	1,000	...	...	
	Non-Residential		5	Building	8	9,800	300	5,000	(iii) Schools/Colleges, *Town Area Committee*, a Local Self Government institution were given grants.
5	Secular	36	6	Furniture	1	250	...	...	
6	Sectarian	4	7	Water Supply/Sanitation/Light etc.	1	1,000	...	...	(iv) An agency *Kala Kendra* was given grants for youth welfare activities.
	Others		8	Educational/School material	1	500	...	...	
7	Schools (Junior, Nursery, Montessori, etc.)	9	9	Medicine/Hospital equipment	1	500	...	...	(v) U.P. Bharat Sewak Samaj was given grants to meet deficit of annual conference.
8	Hospitals	1	10	General Programme/of welfare, adult literacy etc.	20	31,450	250	3,000	(vi) An agency, *Urmila Mahila Dastkari Kendra* was given grants for *Art Classes*.
9	Handicraft Training (Training and/or Production centres)	15	11	New Homes/New schemes	1	3,000	...	...	
10	Adult Education	1	12	Physically handicapped/material/equipment/Aid etc.	1	500	...	...	(vii) Sectarian non-residential organisation viz. *Arya Samaj* was given grants for General maintenances.
	Handicapped		13	Seminar/conference/Research	1	3,000	...	...	
11	Education of Handicapped (Rehabilitation included)	8							

1957-58

TABLE 2—(*Contd.*)

Grants-in-Aid to Voluntary Agencies

Sl. No.	Type of Agency (Identity by name	Number of agencies	Sl.No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)		Remarks
							Lower	Upper	
12	Training for Teachers of Handicapped	0	14	Recreational Material	Nil	Nil	Nil	Nil	(viii) New and unregistered agencies, specially at Mathura, Meerut, Rampur, Lucknow sprung up for taking grants.
	Professional		15	Youth programmes/welfare/camps/stipend/Hostel etc.	Nil	Nil	Nil	Nil	
13	Professional Social Work organisations	Nil							
			16	Recurring/Not specified	Nil	Nil	Nil	Nil	
	All India/State								
14	All India/State Social Work organisation	1				1,73,090			
	Total	137							
	Actual	71							

1958-59

TABLE 3

Grants-in-Aid to Voluntary Agencies [4]

Sl. No.	Types of Agency (Identity by name)	Number of agencies	Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)		Remarks
							Lower	Upper	
	Homes								
1	Hindu	31	1	General Maintenance	64	82,250	250	10,000	(i) Purpose of grant in certain cases was confusing. In many cases *Gen. maintenance*, equipment, maintenance of inmates etc. were combined; no break-up was indicated. (ii) Grants were given also for maintenance and rehabilitation of *leprosy patients*. (iii) Recurring Grant of Rs. 17,000/- granted to *All India Sewa Samiti* for general welfare programmes. (iv) Substantial grant went to Meerut, Mathura, Kanpur, Varanasi, Lucknow and Allahabad. (v) One institution each of Agra, Banda, Bareilly, Dehra Dun, Jhansi, and 4 of Allahabad; 2 at Gorakhpur, 2 of Kanpur, 3 at Lucknow and Varanasi each, were given grants for more than once in the same financial year for the same purpose or identical purpose. (vi) Kashi Sewa Samiti was given grants *thrice*. While repeating grants balance between Hindu and Muslim agencies was made.
2	Muslim	16	2	Maintenance of Inmates	15	41,777	500	9,800	
3	Christian	5	3	Equipment	29	34,250	250	3,000	
4	Secular	22	4	Raw Material	7	5,500	500	1,000	
	Non-Residential								
5	Secular	41	5	Building (Extension/Repairs etc.)	6	13,500	500	5,000	
6	Sectarian	2	6	Furniture	4	4,500	500	2,000	
	Others		7	Water Supply/Sanitation/Light etc.	1	300	...	...	
7	Schools (Junior, Nursary, Montessori etc.)	11	8	Educational/School material	7	7,950	200	2,000	
8	Hospitals	1	9	Medicine/Hospital equipment	3	3,500	500	2,000	
9	Handicraft Training (Training and/or Production centres)	18	10	General Programme/of welfare, adult literacy	8	24,050	300	17,000 (See, Recurring)	
10	Adult Education	1	11	New Homes/New Schemes	Nil	...	...	...	
	Handicapped								
1^1	Education/Rehabilitation of Handicapped	1	12	Physically handicapped/material/equipment/Aids	Nil	...	...	...	

1958-59

TABLE 3—(*Contd.*)

Grants-in-Aid to Voluntary Agencies

Sl. No.	Types of Agency (Identity by name)	Number of agencies	Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)		Remarks
							Lower	Upper	
12	Training of Teachers for Handicapped	0	13	Seminar/Conference/Research	1	500	...	...	(vii) Grants for recreational material for children, grants to Bal Kalyan Samities should have come from Reformation department.
	Professional		14	Recreational material	11	8,150	250	2,000	
13	Professional social work organisations	Nil	15	Youth Programmes/Welfare/Camps/Stipend/Hostel	4	3,000	500	1,500	(viii) Grants for distributing medicines were given to various agencies.
	All India/State		16	Recurring/Not specified	1	17,000	...	...	(ix) Grants were given to an agency for more than one purpose.
14	All India/State Social Work organisations	1							
	Total	150				2,46,227			
	Actual	130							

1959-60

TABLE 4

Grants-in-Aid to Voluntary Agencies[5]

Sl. No.	Type of Agency (Identity by name)	Number of agencies	Sl.No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)		Remarks
							Lower	Upper	
	Homes:								
1	Hindu	21	1	General Maintenance	71	1,02,786	500	9,902	(i) Grants given to Kamla Nehru Hospital, Allahabad for *Centre of Social Workers*.
2	Muslim	13	2	Maintenance of Inmates	12	35,200	300	15,000	(ii) *Sociology Association* of Vidyant College, Lucknow was given grants for *Sociological activities*.
3	Christian	5	3	Equipment	39	29,550	200	2,000	
4	Secular	17	4	Raw Material	15	16,900	400	3,000	(iii) As many as *Seventeen* Deaf and Dumb schools, Blind Schools and asylums, and U.P. association for the Blind, Aligarh were given grants for General maintenance etc.
	Non-Residential:								
5	Secular	36	5	Building (Extension, improvement, repairs etc.)	17	26,800	500	5,000	
6	Sectarian	6	6	Furniture	7	4,800	300	1,000	(iv) *Sadhu Samaj*, Kankhal, was also given grants for '*welfare*'.
	Others:		7	Water Supply/Sanitation/Light etc.	Nil	Nil	Nil	Nil	(v) Training college of Teachers for Deaf and Dumb Lucknow, got grants *four times* in the same session for similar purposes.
7	Schools (Junior, Nursery, Montessory, etc.)	26	8	Educational material/School Material	21	18,950	200	2,000	

1959-60

TABLE 4—(*Contd.*)

Grants-in-Aid to Voluntary Agencies

Sl. No.	Type of Agency (Identity by name)	Number of agencies	Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)		Remarks
							Lower	Upper	
8	Hospitals	5	9	Medicines/Hospital equipment	11	8,100	200	2,000	(vi) A 'Typewriting school' was also given substantial grants.
9	Handicraft Training (Training and/or Production centres)	22	10	General programme/ of welfare, adult literacy.	28	35,450	200	8,500	(vii) Grants were given for (a) Black boards, (b) Distribution of free milk, (c) publication of children's books, (d) vocational training-purpose i.e. raw material, equipment etc., not specified (e) to start a child guidance clinic for benefit of poor children free of cost, (f) to meet budget deficit, (g) additional grant for maintenance.
10	Adult Education	4	11	New Homes/New Schemes	Nil	Nil	Nil	Nil	
	Handicapped:								
11	Education of Handicapped (Rehabilitation included)	37	12	Physically handicapped/(material, equipment, Aid)	(Grants given for General maintenance, maitenance of inmates or towards budget deficiency of the agency).				
12	Training of Teachers for the Handicapped	4	13	Seminar/conference/ Research	2	2,823	823	2,000	
	Professional								
13	Professional Social Work Organization	1	14	Recreationl Material	9	5,000	100	1,000	(viii) Rs. 1,500/- as additional grant for maintenance of minor Naik girls were given to an institution.
			15	Youth Programmes/ Welfare/Camps/Stipends/Hostel etc.	Nil	Nil	Nil	Nil	

1959-60

TABLE 4—(*Contd.*)

Grants-in-Aid to Voluntary Agencies.

Sl. No.	Type of Agency (Identity by name)	Number of agencies	Sl.No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)		Remarks
							Lower	Upper	
	All India/State								
14	All India/State Social Work Organisation	3	16	Recurring/Not specified	18	70,189	640	16,750	(ix) In the absence of specified purpose of grants, one of the grantee institution submitted accounts showing potatos, curd, chillies etc. as expenditure.
	Total	200				3,56,548			
	Actual	166							

1960-61

TABLE 5

Grants-in-Aid to Voluntary Agencies[6]

Sl. No.	Type of Agency (Identity by name)	No. of agencies	Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)	
							Lower	Upper
	Homes:							
1	Hindu	22	1	General Maintenance	71	84,950	400	3,000
2	Muslim	13	2	Maintenance of Inmates	12	22,820	420	6,000
3	Christian	4	3	Equipment	34	31,050	300	3,000
4	Secular	10	4	Raw material	14	13,000	500	1,500
	Non-Residential:							
5	Secular	45	5	Building (Extension, improvement, repairs etc.)	13	34,000	500	5,000
6	Sectarian	Nil	6	Furniture	16	13,900	500	2,000
	Others:		7	Water Supply etc.	Nil	Nil	Nil	Nil
7	Schools	39	8	Educational Material/ School Material	11	10,500	500	2,000
8	Hospitals	9	9	Medicines/Hospital equipment	8	5,000	500	1,000
9	Handicraft Training (Vocational Training etc.)	30	10	General programmes/ welfare, Adult Education	7	4,100	300	1,000
10	Adult Education	1						
	Handicapped:		11	New Homes/New Schemes	Nil	Nil	Nil	Nil
11	Education/Rehabilitation of the Handicapped	3	12	Physically Handicapped (material, equipment, Aids)	(Grants given for General Maintenance etc.)			
12	Training of Teachers for Handicapped	Nil	13	Seminar/Conference/ Research/Publication	2	1,500	500	1,000
	Professional:		14	Recreational Material	24	16,350	200	2,000
13	Professional Social Work Organisations	Nil	15	Youth Programmes/ welfare/camps/stipend/ Hostel etc.	2	850	350	500
	All India/State:							
14	All India/State Social Work Organisation	6	16	Recurring/Not specified	Nil	Nil	Nil	Nil
	Total	182				2,38,020		
	Actual	166						

Note—Grants were given for more than one purpose.
Wasiqa School, Faizabad, has been included in the schools.

Remarks (i) Total Grants broken up as: (a) 2,38,000 Lump sum and (b) Rs. 50,000 for Homes.

(ii) Minister's discretionary Grants are separate.

(iii) An agency of Bombay, National Association for the Blind, 51, Mahatma Gandhi Road given grants for the publication of 'Blind Welfare'.

(iv) Sarvodaya Nature Cure Hospital, Agra, many eye Hospitals of the State got Grants (Grants should have come from Health Deptt.).

(v) Friends Union Club, Ranikhet was exempted from the *condition of matching contribution* (G. O. 1294/XXXVI-SW-83/60 dt. 22-3-61).

(vi) Child Welfare and Social Welfare leagues of Schools and Colleges were given grants. *Bal Biradari,* Muslim University, Aligarh; *Bal Kendra* Dayanand College, Mahanagar, Lucknow, *Social Welfare League,* S.D. Inter College, Muzaffarnagar were such recipients.

(vii) U.P. Association for the Blind was given grants; also Balkanji Bari, U.P. State Branch, All India Women's conference, All India Crime Prevention Society, Bharat Sewak Samaj, All India Association for Social and Moral Hygiene were given grants for varied purposes.

(viii) *Gandhi Smarak Nidhi,* Rajghat, was given grants for the appointment of a Social Worker on Rs. 100/- p.m. to do social work in the Leper's colony (vide G.O. No. 5556/XXXVI-SW-83/60 dt. 28-10-60).

(ix) A voluntary agency U.P. *Bureau of Child Welfare and Research* was given grants for Seminar, Research etc.

(x) *Lionett's Club* (a club of the well-to-do women-wives of the members of Lion's Club International, Lucknow Branch, was given grants.

(xi) Centres for Physical Training and Education *Loknath Vyayam Shala,* Allahabad, *Central Physical Institute,* Varanasi, given grants for gymnastics and physical culture. U.P. Council of Sports could perhaps help them better.

(xii) Good number of libraries and Reading rooms also got grants. The Municipal Boards, Education Expansion Deptt. etc. were the proper sources.

(xiii) *Gurukul Mahavidyalaya,* Faizabad, *Junior Higher School for girls,* Kidwainagar, Kanpur, *Sarda Sadan Kanya Vidyalaya,* Kanpur, large number of nursery, pre-primary, montessori schools got grants for school material, educational meterial, recreational material etc. Above all, grants for *School building* were given to Dayanand Vidyalaya; Rs. 700/- for purchase of Rickshaw to Kishori Raman Montessori school, Mathura were given in the session. In most districts these schools were known as *Saraswati Shishu Mandir.* Grants should have come from Education Department or local bodies.

(xiv) Most of the agencies/institutions of women welfare were nothing else but vocational training centres. Grants under this head were given to Mahanand Mission Training-cum-Production Centre, Ghaziabad. Grants should have come from Industries department.

(xv) An agency in the rural area, *Gramodaya Samiti,* Parikshatgarh, (Meerut) was given grants for children's recreation. Grants for this purpose should have been channelized by the Planning department.

(xvi) Grants for purchase of *furniture and equipment* for libraries and play centres were given. In public libraries no equipment is needed and at the play centres no furniture is needed.

1960-61

TABLE 5 A

Grants-in-Aid to Voluntary Agencies [7]

Sl. No.	Agency	Purpose of Grant	Amount Rs.	Remarks
1	Nagar Samaj Kalyan Samities/Mohalla Samaj Kalyan Samities.	For executing welfare schemes in the town through Mohalla Samaj Kalyan Samities	34,500	(i) Nagar Samaj Kalyan Samiti and Mohalla Samaj Kalyan Samiti schemes had not functioned well. (ii) The scheme of voluntary/honorary social workers was also politically motivated. (iii) The purpose of the grant is not well specified, e. g. what is the publicity which the Samaj Kalyan Samities were supposed to do, and who were the social workers whose conference was to be called
2	Mohalla Samaj Kalyan Samities/Nagar Samaj Kalyan Samities.	(i) Grant of remuneration to honorary social workers (ii) For publicity and propaganda (iii) Holding of annual conferences of social workers (iv) For transport expenses of destitute, physically handicapped and other categories of socially needy persons who may have to be removed to official or voluntary welfare institution	11,302	
			45,802	

1961-62

TABLE 6

Grants-in-Aid to Voluntary Agencies[8]

Sl. No.	Type of Agency (Identity by name)	No. of agencies	Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)	
							Lower	Upper
	Homes :							
1.	Hindu	15	1.	General Maintenance	69	1,01,000	250	6,000
2.	Muslim	13	2.	Maintenance of Inmates	15	21,900	500	5,000
3.	Christian	3	3.	Equipment	30	20,750	250	4,000
4.	Secular	10	4.	Raw Material	22	15,200	200	1,500
	Non-Residential :		5.	Building (Extension, improvement, repairs etc.	14	59,700	1,200	20,000
5.	Secular	30	6.	Furniture	6	5,500	500	2,000
6.	Sectarian	2	7.	Water Supply/Sanitation/Light etc.	Nil	Nil	...	...
	Others :							
7.	Schools	27	8.	Educational Material/School Material	2	3,000	500	2,500
8.	Hospitals	11	9.	Medicines/Hospital/equipment	12	7,200	400	1,000
9.	Handicrafts Training/vocational training etc.	31	10.	Gen. Programmes/Welfare/Adult Education	6	3,750	250	1,500
10.	Adult Education	0	11.	New Homes/New Schemes	Nil	Nil	...	...

TALLE—(Contd.)

Grants-in-Aid to Volmetry Agencies

	Handicapped :		12.	Physically Handicapped (material, equipment, Aids)	Nil	(Grants given for other purposes)		
11.	Education/Rehabilitation of the Handicapped	5	13.	Seminar/Conference/Research/Publications	6	3,500	500	1,000
12.	Training of teachers for the Handicapped	0	14.	Recreational Material	9	5,000	500	1,000
	Professional :		15.	Youth Programmes/Welfare/Cams/Stipend/Hostel etc.	1	500	...	...
13.	Professional Social Work Organisations	3	16.	Recurring/Not specified	0	Nil	...	...
	All India/State :					2,47,000		
14.	All India/State Social Welfare organisations.	5						
	Total	155						
	Actual	120						

Remarks—

(i) Grants were given for more than one purpose.

(ii) Following conditions were to be fulfilled:

(a) Registration under the Societies Registration Act (No. XXI of 1860). (b) Abide by the U.P. Grants to social welfare institutions and organisations Rules, 1960. (c) Grants to be strictly governed by Chapter XVI of the Financial Handbook, volume V, Part I. (d) Grants to *buildings*, *furniture* and other capital expenditure to be released only after *Matching Grant* is ensured. (e) No grants to be released to such institutions which have not submitted the *utilization* certificate of the previous grants.

(iii) Although there was to some extent clarity about the allocation of Grant-money to various types of agencies, yet the following anomalies were found :

(a) Widow Homes and orphanages were included in all the three notifications. (b) Nanhi Dunia, Dehra Dun was given grants thrice for different purposes. (c) Ayurvedic Aushdhalay (Hospitals) were also given grants.

(iv) Standard Training Institute which received grants for vocational training so far, was given grants for distribution of medicines, clothes etc. to poor people.

(v) Technical schools were also given grants.

(vi) Young Men's Christian Association, Lucknow was given grants of Rs. 5,000/- for building.

(vii) Professional organisations: Lucknow University Social Work Alumni Association, Lucknow University and the Banaras Sociological Society, Kashi Vidyapeeth, Varanasi were given grants for its activities.

(viii) An institution which was so far known as U. P. Bureau of Child Welfare and Research, Hazrat Ganj, Lucknow, was listed in the list as All India Bureau of Child Welfare and Research.

1963-64

TABLE 7

Grants-in-Aid to Voluntary Agencies[9]

Sl. No.	Type of Agency (Identity by name)	No. of agencies	Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range(Rs.)	
							Lower	Upper
	Homes							
1.	Hindu	2	1.	General Maintenance	1	1,625	...	...
2.	Muslim	4	2.	Maintenance of Inmates	9	25,800	500	7,830
			3.	Equipment	4	2,000	250	750
3.	Christian	2	4.	Raw Material	5	1,900	150	500
4.	Secular	4	5.	Building (Extension, repairs, improvement)	5	6,750	250	2,500
	Total	12	6.	Furniture	4	800	150	250
			7.	Water Supply/Sanitationl/Light etc.	4	1,600	100	500
						40,475		

(i) Out of a provision of 50,000 only 40,475 were given as Grants to various agencies.

(ii) One institution was given grants for more than one purpose.

(iii) For only one institution of Jhansi the conditions for matching amount of 50:50 were specifically laid down.

(iv) Only in cases of few institutions the G.O. clarified the purpose of the grant viz. food, clothes etc. otherwise generally, terms and conditions were not fully explained.

(v) Irrespective of the size of institution and the number of inmates, the grants were given to the agencies.

(vi) Only one G.O. could be available. In regard to other grants released in the financial year order no. C-53/ HSK-WHP-(BD-9) 63-64/GTS-Nideshalaya, *Harijan Evam Samaj Kalyan* stipulated the release of grants on *April 28, 1964* and the utilization was directed till *August 31, 1964*.

(vii) Yet another reference of G.O. No. 5705/XXXVI-SW-83/63 dated 4.2.1964 stipulated grants for *Kamla Nehru Shishu Niketan* (Nursery School) Firozabad for purchase of furniture and purchase of recreational material for *free* facilities of recreation to children. Grants should have come from Reformation Department/Education Department.

(viii) Similarly another agency *Friend's Society*, Agra (see reference of 9-12-64) was given grants for activities like information centre, children centres, literary circle, reading room, sports circle, night school, library. Grants of only Rs. 400/- was given to meet the deficit in the budget and to run children's centre. The society is not traceable now.

Note—Government orders in regards to grants to other agencies were not available.

1964-65

Table 8

Grants-in-Aid to Voluntary Agencies [10]

Sl. No.	Type of Agency (Identity by name)	No. of agencies	Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)		Remarks
							Lower	Upper	
	Homes :		1.	General Maintenance	Nil	Nil	...	...	(i) Grants were meant for Homes, however, Distt. Council for Child Welfare, Lucknow was given grants for equipment and material for play centres.
1.	Hindu	8	2.	Maintenance of Inmates	17	54,065	500	7,500	
2.	Muslim	5	3.	Equipment	1	700	...	...	
3.	Christian	1	4.	Raw Material	1	300	...	...	(ii) The provision was for Rs. 50,000/- but total grants given were to the tune of Rs. 59,465/-.
4.	Secular	2	5.	Building (Extension/improvement/repairs)	2	1,400	400	1,000	
	Non-Residential :								
5.	Secular	1	6.	Furniture	4	1,000	100	500	(iii) Grants for medicines, educational material etc. were meant for the benefit of inmates.
6.	Sectarian	Nil	7.	Water Supply/Sanitation/Light etc.	2	400	150	250	
	Others :								
7.	Schools	Nil	8.	Educational Material/School Material	2	750	250	500	(iv) Since the notifications for the award of grants from other sources were not available only this notification has been taken for analysis.
8.	Hospitals	Nil	9.	Medicines/Hospital equipment	2	350	100	250	
9.	Handicraft Training/Vocational Training	Nil	10.	General Programmes/Welfare, Adult Education	Nil	...	...	...	
10.	Adult Education	Nil							

1965-66

TABLE 8 (*Contd.*)

Grants-in-Aid to Voluntary Agencies

Sl. No.	Type of Agency (Identity by name)	No. of agencies	Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)		Remarks
							Lower	Upper	
	Handicapped :		11.	New Homes/New Schemes	Nil	...	...	...	
11.	Education/Rehabilitation of the Handicapped	Nil	12.	Physically Handicapped (material, equipment etc.)	Nil	...	...	...	
12.	Training of Teachers for the handicapped	Nil	13.	Seminar/Conference/Research/Publication	Nil	...	...	...	
	Professional :		14.	Recreational Material	1	500	...	...	
13.	Professional social work organization	Nil	15.	Youth Programmes/Welfare/Camps/stipend/Hostel etc.	Nil	...	...	...	
	All India/State :								
14.	All India/State Social Welfare Organisations	Nil	16.	Recurring/Not specified	Nil	...	...	...	
	Total	17				59,465			

Note—Only one notification could be available; orders regarding Grants to other agencies could not be traced.

1965-66

TABLE 9

Grants-in-Aid to Voluntary Agencies[11]

Sl. No.	Type of Agencies (Identity by name)	No. of agencies
	Homes :	
1.	Hindu	17
2.	Muslim	6
3.	Christian	1
4.	Secular	3
	Non-Residential :	
5.	Secular	1
6.	Sectarian	Nil
	Others :	
7.	Schools	Nil
8.	Hospital	Nil
9.	Handicraft Training/ Vocational training	Nil
10.	Adult Education	Nil
	Handicapped :	
11.	Education/Rehabilitation of the Handicapped	Nil
12.	Training of Teachers for Handicapped	Nil
	Professional :	
13.	Professional Social work organisation	Nil
	All India/State :	
14.	All India/State Social Welfare Organisation	Nil
	Total	28

Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)	
				Lower	Upper
1.	General Maintenance	6	7,500	500	3,000
2.	Maintenance of Inmates	21	50,250	200	7,500
3.	Equipment	4	1,900	100	1,000
4.	Raw Material	7	3,400	300	1,000
5.	Building (Extension/ improvement/Repairs)	6	4,250	250	1,500
6.	Furniture	2	800	300	500
7.	Water Supply/Sanitation/Light etc.	3	900	200	500
8.	Educational Material/ School Material	Nil	Nil	...	...
9.	Medicines/Hospital Equipment	Nil	Nil	...	...
10.	General Programmes/ Welfare, Adult Education	Nil	Nil	...	...
11.	New Homes/New Schemes	Nil	Nil	...	...
12.	Physically Handicapped/Material/equipment/Aids	Nil	Nil	...	...
13.	Seminar/Conference/ Research/Publication	Nil	Nil	...	...
14.	Recreational Material	Nil	Nil	...	...
15.	Youth Programmes/ Welfare/Camps/stipends/Hostel etc.	Nil	Nil	...	...
16.	Recurring/not specified	Nil	Nil	...	...
			69,000		

Remarks

(i) Grants were given for more than one purpose.

(ii) As usual institutions bearing caste names were given grants.

(iii) The G. O. issued from the Secretariate on March 26, 1966 stipulated withdrawal of the grants by the Director, Social Welfare, Uttar Pradesh by March 31, 1966 and the distribution of grants to the institutions, through the District Harijan and Social Welfare Officers, latest by March 31, 1966.

(iv) The Grants were conditional in terms of chapter VI-A of the Financial Hand Book, Volume V, Part I and the Government as well as the Accountant General, U.P. had to be informed about the submission of proper utilization certificate.

(v) Grants were to be released when it was thoroughly checked that Grants for similar purpose had not been given by any other department of the State.

(vi) In respect of the utilization of the Grants the institutions were to undertake and abide by the U.P. Grants to Social Welfare Institutions and organisations Rules 1960.

(vii) Grants for building, equipment, furniture and other capital expenditure could be released by the district officers after ensuring that the institutions undertake to spend an equivalent amount from their own resources. The *grants had not to be released* until the aforesaid conditions had been satisfied.

(viii) The Grantee institutions were made to submit the proper utilization certificate for these grants, as also of any grants sanctioned in the previous years, and send to the State Government and Accountant General, Uttar Pradesh, as required under paragraph 8 of the Financial Hand Book.

Note—Orders in regard to grants to other agencies could not be procured.

1966-67

TABLE 10

Grants-in-Aid to Voluntary Agencies[12]

Sl. No.	Type of Agency (Identity by name)	No. of agencies	Sl. No.	Purpose of Grant	No. of agencies	Amount (Rs.)	Range (Rs.)	
							Lower	Upper
	Homes :							
1.	Hindu	17	1.	General Maintenance and meeting the deficit of the budget	6	2,915	215	800
2.	Muslim	9	2.	Maintenance of Inmates	32	37,395	200	6,425
3.	Christian	3	3.	Equipment	14	4,850	200	1,000
4.	Secular	9	4.	Raw Material	9	1,950	100	300
	Non-Residential :							
5.	Secular	Nil	5.	Building (Extension/improvement/Repairs)	14	5,700	200	1,000
6.	Sectarian	Nil	6.	Furniture	11	1,500	50	250
	Others :							
7.	Schools	Nil	7.	Water Supply/Sanitation/Light etc.	11	1,500	50	250
8.	Hospitals	Nil	8.	Educational Material/School Material	1	100	...	...
9.	Handicraft Training/Vocational Training	Nil	9.	Medicines/Hospital equipment	4	550	100	250
10.	Adult Education	Nil	10.	General Programme/Welfare, Adult Education	Nil	Nil	...	...
	Handicapped :							
11.	Education/Rehabilitation of the Handicapped	Nil	11.	New Homes/New Schemes	Nil	Nil	...	...
12.	Training of Teachers for the Handicapped	Nil	12.	Physically Handicapped/(Material, equipment, aids)	Nil	Nil	...	...
	Professional :							
13.	Professional Social Work organisation	Nil	13.	Seminar/Conference/Research/Publications	Nil	Nil	...	...
			14.	Recreational Material	Nil	Nil	...	...
	All India/State :							
14.	All India/State Social Welfare Organisations	Nil	15.	Youth Programmes/Welfare/Camp/Hostel etc.	Nil	Nil	...	...
			16.	Recurring/not specified	Nil	Nil	...	...
	Total	38				56,460		

Remarks Vide C-152/APPLS-(III SETS-307) 66-67/WWG dated September 17/19, 1966,

Budget Provision for Grants was:

(i)	Grants to Widow Homes and Orphanages	Rs.	50,000/-
(ii)	Mahila Sahayak Sangh (Recurring) Lucknow	,,	25,000/-
(iii)	Stranger's Homes, Allahabad and Lucknow (Rec.)	,,	5,000/-

(iv) Grants to Deaf and Dumb and Blind schools ,, 137,000/-

(v) Grants to various institutions and organizations for welfare work (Rec. and Non-Rec.) ,, 143,700/-

(vi) U. P. Aparadh Nirodhak Samiti, Lucknow (Recurring grants) ,, 22,000/-

(vii) Women Social Service League, Lucknow (Recurring grants) ,, 6,000/-

(viii) Secret letter No. C/162/SK-(UCS-PAC) 55-66/WWG dt. Sept. 24, 1966 circulated a list of institutions (list not available) which had not submitted proper accounts in regard to grants given to them from 1955 to 1966.

(ix) G.O. No. 512/36-SK-83/65 dt. Sept. 28, 1967 from Deputy Secretary, U.P. Government, to Director, Social Welfare, U.P. clearly stated that grants from Social Welfare were not to be given to:
(a) Charitable Hospitals (b) Junior, primary, nursery, montessori schools. Grants could now be given only to (a) Women and Child Welfare Organisations (b) Blind, Deaf and Dumb schools and institutions for the handicapped. (c) Welfare organisation for Beggars. This order, no doubt, is a step forward, but it is too restrictive and vague.

(x) Details—number of organisations, Deaf, Dumb and Blind schools, sum allotted to each of these and conditions of grants in respect of other budgetory provisions were not available.

(xi) An institution which was considered to be the best institution of one of the districts had no provision of audit.

Note—Notifications in regards to grants to Deaf and Dumb and Blind schools and other agencies could not be procured.

1967-68

TABLE 11

Budgetary Provisions for Grants-in-Aid[13]

Sl.No.	Items	Amount	Remarks
1	Orphanages and Widow Homes	50,000/-	(i) Recurring grants were given to four organisations (ii) A huge sum was given to the State Social Welfare Advisory Board, the largest so far. (iii) Seventyfour 'welfare' institutions/organisations receiving grants from the Directorate so far, were refused grants since these did not qualify the conditions; most of these were schools, hospitals, handicraft training centres, physical education centres etc. (iv) Most of these organisations to which the grants were denied belonged to: Health, Education, Industries, Cultural Affairs, Local Self government, Harijan Welfare or Reformation departments. (v) It would be an interesting study to find out whether these organisations are still functioning or closed down. (vide: C-346/Gen-407-GTS/67-68 dt. March 12, 1968).
2	Mahila Sahayak Sangh, Lucknow (Rucurring)	25,000/-	
3	Stranger's Homes, Allahabad and Lucknow (Recurring)	5,000/-	
4	Voluntary Welfare Organisations (Non-Recurring)	1,50,000/-	
5	U.P. Crime Prevention Society (Recurring)	22,000/-	
6	Nari Sewa Samiti, Lucknow (Recurring)	6,000/-	
7	State Social Welfare Advisory Board	3,53,000/-	
8	Sewa Samiti, Allahabad (Recurring)	17,000/-	
	Total	6,28,000/-	

1955-56 to 1962-1963

TABLE 12

Irregularities in the Grants-in-Aid to Voluntary Agencies[14]

List of defaulting institutions in various Districts, amount and years of default. 1955-61 i.e. till March 31, 1962.

Sl. No.	District	No. of Institutions	Amount (Rs.)
1	Agra	9	21,400
2	Aligarh	5	11,500
3	Allahabad	10	12,300
4	Almora	3	1,500
5	Ballia	1	200
6	Barabanki	2	10,800
7	Basti	1	1,500
8	Budaun	1	500
9	Banda	1	1,500
10	Bulandshahr	2	3,000
11	Dehradun	8	10,000
12	Etawah	1	500
13	Faizabad	2	1,500
14	Gorakhpur	5	9,500
15	Gonda	1	900
16	Hamirpur	3	2,500
17	Jhansi	4	4,500
18	Jalaun	3	4,000
19	Kheri Lakhimpur	2	1,800
20	Kanpur	29	40,350
21	Lucknow	19	69,750
22	Mainpuri	1	1,500
23	Mathura	11	12,350
24	Meerut	7	13,300
25	Mirzapur	1	500
26	Moradabad	2	1,000
27	Muzaffar Nagar	4	2,100

1955-56 to 1962-1963

TABLE 12—(*Contd.*)

Irregularities in the Grants-in-Aid to Voluntary Agencies

List of defaulting institutions in various Districts, amount and years of default. 1955-61 i.e. till March 31, 1962.

Sl.No.	District	No. of Institutions	Amount (Rs.)
28	Nainital	2	15,800
29	Rampur	2	1,500
30	Saharanpur	4	11,090
31	Shahjahanpur	1	500
32	Sitapur	2	4,000
33	Sultanpur	1	1,000
34	Unnao	6	4,550
35	Varanasi	10	20,720
36	Bombay	1	500
	Total	167	3,18,810

Agra:—[1] District Social Welfare Coordination Committee, an advisory body formed by a G.O. of the State government was given Rs. 8,000/- for the survey of Deaf, Dumb and Blind in 1955–56. The fate of the survey is not known. Details are not available either at the Head quarter or Agra office. This committee was latter replaced by Nagar Samaj Kalyan Samiti.

[2] Shrimad Dayanand Anathalaya and Emma Luckstdet widow Home were defaulters.

Aligarh:—[1] Bal Biradari c/o Aligarh Muslim University was defaulter for several years, yet the grants were given.

[2] Muslim Orphanage defaulter in 1957–58, 1960–61.

Barabanki:—[1] Women's Service Home, defaulter in 1957–58, 1958–59, 1960–61.

Hamirpur:—[1] Prantiya Anathalaya was defaulter in 58–59, 60–61.

Jalaun:— [1] Antarim Zila Parishad was defaulter in 1958–59 and 1960–61.

Kanpur:— [1] Yatim Khana Islamia, Muslim Orphanage defaulter in 1957–58 and 60–61.

[2] Mabila Shilp Kala Vidyalaya and Nari Kala Kendra defaulters in 58–59 and 60–61.

Lucknow:—[1] Indian Conference of Social Work, U.P. State Branch was given Rs. 3,500/- for field survey in 1955–56.

[2] Again Rs. 3,500/– were given for All India Conference in 1956–57.

[3] Another grant to ICSW for Rs. 1,500/– for the survey of destitution among childern at Kanpur.

[4] J.K. Institute: Rs. 14,000/– for Training of Social Workers in 1955–56.

[5] Again Rs. 2,000/– for the survey of the incidence of blindness and prospects of employment of blind at Lucknow in 1956–57.

[6] Another grant of Rs. 2,000/– for the above survey at Gorakhpur.

[7] Yet another grant of Rs. 12,500/– for the Training of Voluntary Social Workers in 1957–58.

TABLE 12—(*Contd.*)

8. Nari Jagriti Sewa Samaj defaulter in 1957-58 to 60-61.
9. All India Crime Prevention Society was given Rs. 3,000/- for building in 1959-60. All these agencies were defaulters.

Mathura:—1 Chaturvedi Mahila Shilp Vidyalay, defaulter in 1958-59 and 1959-60.

Moradabad:—1 Samaj Kalyan Samiti, again a quasi-government body was defaulter in 1960-61.

Muzaffar Nagar:—1 Social Welfare League, S.D. College, Muzaffarnagar defaulter for two years.

Note—Irregularities or default was in respect to one or more of the following:—

(i) Non-receipt of utilization certificate.
(ii) Irregularities in the utilization of grants.
(iii) Non-compliance of U.P. Grants to Social Welfare Institutions and Organizations, Rules, 1960, or U.P. Education Code or Financial Handbook Rules.
(iv) Objections of the A.G.
(v) Non-utilization of grants within the stipulated time.
(vi) Non-execution of agreement as required under the rules.
(vii) Non-compliance of the conditions as stipulated in the Government order.
(viii) Some institutions were not registered; closed down within one year of the receipt of the Grant.

1961-66

TABLE 12 A

Grants-in-Aid to Voluntary Agencies (Consolidated Statement)

Sl.No.	Type of Institution/Agency	Amount (Rs.)	No. of Institutions/ Grants
1	Orphanages and Widow Homes	4,19,365	150
2	State Social Welfare Advisory Board	10,88,566	...
3	Seva Samiti, Allahabad	85,000	...
4	U.P. Crime Prevention Society, Lucknow	1,00,698	...
5	Women's Social Service Leagues, Lucknow	18,000	...
6	Other Social Welfare Agencies	9,67,640	89
7	Physically Handicapped, Schools	4,72,468	87

APPENDIX I

Specimen of Audit Report submitted by an institution to the Social Welfare Directorate.

Audit for 1967-68.

Income:	*Amount* Rs.
1. Opening Balance on 1-4-1967	791·47
2. Government grants for 1967-68	6,660·00
3. Donation from St...............	52,340·00
Total:	59,791·47
Expenditure:	
1. Pay of Servants	4,080·00
2. On Food, Clothes, Medicines etc. of 71 inmates (5-9-1967 to 1-6-68)	48,543·00
3. Capital expenditure	6,826·00
Total:	59,449·64
Credit Balance (1-4-1968)	341·83

Sd/ (a superior church official)

APPENDIX II

Expenditure shown by an Institution against the government grant given for 'general maintenance' vide G.O. No. 5839/XXXVI-SW-238/63/dt. 16.3.1964

For April 1964.

Items	*Expenditure* Rs.
Price for one chukki Lime	16·00
-do-	16·00
Nails	1·00
Wooden Plank	4·75
Screws	0·69
Daily wages of two carpenters	190·00
Bricks 10,000	400·00
Total	628·44

For May

	Rs.
Dust Coal 200 ft.	44·00
Lime	16·00
Lime	16·00
Lime	16·00
Jali	7·50
Jali	96·66
Dust coal	5·50
Bricks	151·00
Bricks	186·18
Bricks	373·36
Jamuna Sand	18·00
Sanitation work	700·00
Cement	125·68
Bricks	372·36
Dust and Lime	21·50

Item		*Amount* Rs.
Miscellaneous charges		14·00
Cement		41·90
Lime		32·00
Sanitation work		300·00
	Total	2,536·64
For June		
Mason work		1,320·00
Pipe fitting		124·13
Cement		125·67
		1,569·80
For August		
Repair of Boundary wall		49·00
Price of Lime		128·00
Wages of Masons		204·00
-do-		306·50
For September		
Wages of Masons		178·50
Sanitation charges		863·00
Pipe fitting		126·92
-do-		7·59
Fire proof bricks		2·40
Lime		84·00
For October		
Construction of chips chairs in the garden		227·50
Construction of Pantry House		401·00
Repair of Kitchen		2,270·00
	Total:	2,898·50
	Grand Total:	9,583·29

Note—Grant given was Rs. 1,500/-
Whereas the expenditure for only six months shown is Rs. 9,583·29,

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FOOTNOTES

[1] The grant to this institution for general maintenance was given vide G. O. No. 5839/XXXVI—SW—233/63 dt. March 16, 1964.

[2] (i) G.O. No. 585/XXXVI-SW-70/1956 dated March 22, 1957.
(ii) G.O. No. 5928/XXXVI-SW-83/1956 dated March 23, 1957 (Supplementary Grants for General Maintenance),
(i) G.O. No. 4889/XXXVI-SW-238/1957 dt. Jan. 24, 1958.
(ii) G.O. No. 1282/XXXVI-SW-238/1957 dt. March 19, 1958.
(iii) G.O. No. 1794/XXXVI-SW-360/(i)/57 dt. March 25, 1958.
(iv) G.O. No. 428/XXXVI-SW-360/1957 dt. March 11, 1958,
(v) G.O. No. 1305/XXXVI-SW-360/(i)/57 dt. March 25, 1958.

[4] (i) G.O. No. DSW/3442A/SK (19) 58-59/GTS dt. July 17, 1958.
(ii) G.O. No. 879/XXXVI-SW-248/58 dt. March 12, 1959.
(iii) G.O. No. 1140/XXXVI-SW-286/58 dt. March 27, 1959.
(iv) G.O. No. 217/XXXVI-SW-245/58 dt. Feb. 14, 1959.
(v) G.O. No. 1129/XXXVI-SW-83/58 dt. March 19, 1959.
(vi) G.O. No. 1288/XXXVI-SW-83/58 dt. March 29, 1959.
(vii) G.O. No. 716/XXXVI-SW-238/58 dt. March 29, 1959.

[5] G.Os.—(i) 10482/87/SK(19) 59–60/GTS dated 13–7–1959
(ii) C–242/SK (22) 59–60/GTS dated 25–7–1959
(iii) 21004–9A/SK(II) 59–60/GTS dated 21–8–1959
(iv) 3860/XXXVI–SW–343/59 dated 9–9–1959
(v) 4094/XXXVI–SW–743/59 dated 9–9–1959
(vi) 5525–XXXVI–SW–981/56 dated 30–11–1959
(vii) C–400/SK (22) 59–60/GTS dated 7–12–1959
(viii) 5900/XXXVI–SW–279/59 dated 8–1–1960
(ix) C–841–46A/SK (22) 59–60/GTS dated 12–1–1960
(x) 1281–86/SK (19) 59–60/GTS dated 21–1–1960
(xi) 110–XXXVI–SW–286/57 dated 23–1–1960
(xii) 647/XXXVI–SW–482/59 dated 1–2–1960
(xiii) 22/XXXVI–SW–83/59 dated 6–2–1960
(xiv) 3418–24A/SK (22) 59–60/GTS dated 7–2–1960
(xv) 3419–24A/SK (22) 59–60/GTS dated 19–2–1960
(xvi) 854/XXXVI/SW–83/1959 dated 16–3–1960
(xvii) 676/XXXVI/SW–238/1959 dated 16–3–1960
(xviii) 845/XXXVI–SW–83/59 dated 16–3–1960
(xix) 4166–71/SK (19) 59–60/GTS dated 18–3–1960
(xx) 4052–57/SK (39)/22/59–60/GTS dated 18–3–1960
(xxi) 1213/XXXVI–SW–83/59 dated 19–3–1960
(xxii) 5485–91A/SK (II) 59–60/GTS dated 22–3–1960
(xxiii) 1302/XXXVI–SW–248/59 dated 25–3–1960
(xxiv) 880/XXXVI–SW–59/60 dated 28–3–1960
(xxv) 1205/XXXVI–SW–322/58 dated 31–3–1960
(xxvi) 1489/XXXVI–SW–83/59 dated 31–3–1960

[6] G.Os—(i) 2452/XXXVI–SW–83/60 dt. 24–10–60.
(ii) 5556/XXXVI–SW–83/60 dt. 28–10–60.
(iii) 448/(3) XXXVI–SW–83/60 dt. 6–2–61.
(iv) 1294/XXXVI–SW–83/60 dt. 22–3–61.
(v) 1117/XXXVI–SW–71/61 dt. 23–3–61.
(vi) 1117/XXXVI–SW–71/61 dt. 23–3–61.
(vii) 854/XXXVI–SW–238/60 dt. 24–3–61.
(viii) 1803/XXXVI–SW–83/60 dt. 27–3–61.

[7] G. O. No. 1117/XXXVI–SW–71/61 dt. 23. 3.61.

[8] G.Os: (i) 308/XXXVI—SW-238/61 dated March 16, 1962 [Women and Children institutions only: (21) Amt. 48,500/-].
(ii) 1297/XXXVI—SW-238/61 dated March 19, 1962 [Widow Homes and Orphanages, (13) Amt.: 22,250/-].
(iii) 1048/XXXVI—SW-83/1961 dated March 23 1962 (General Grants: Institutions (121) Amt. 1,76,250/-].

[9] G. O.No. 5839/XXXVI-SW-238/1963 dated March 16, 1964, Grants to Widow Homes and Orphanages.

[10] G.O. 6537/XXXVI-SW-238/1964 dated March 22, 1965.

[11] G.O. No. 944/XXXVI–SW–238/65 dated March 26, 1966.

[12] G. Os. No. U/O (i) 191/XXXVI–SW–238/66 dated 7-6-66
(ii) 7117/XXXVI–SW–238/66 dated 7-3-67
(iii) 889/XXXVI–SW–238/66 dated 30-3-67
(iv) 931/XXXVI–SW–238/66 dated 31-3-67

[13] (i) C-125/GTS-Form Institutions/67-68/BH.M. GTS dt. Aug. 22/30, 1967
(ii) 232/36-SW-238/67 dt. 23/3/68.

[14] (i) 8952(c)/HSK–MISC–(AG–UCS) 56–61/GTS. Nideshalaya Samaj Tatha Harijan Kalyan, Lucknow, Uttar Pradesh; dt. Nov. 23, 1963.
(ii) Circular No. C–302/SK–(RELE) 55–62/GTS dt. Aug. 16, 1962.
(iii) Circular No. C–352/SK–(RELE) 55–63/GTS dt. Sept. 19, 1962.
(iv) Circular No. C–121/SK–LSP/WHP–(407(9) 61–62/GTS dt. 31–3–62.
(v) No. 8952 (c) HSK–MISC–(AG–UCS) 56–61/GTS, Nov. 23, 1963.

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Agra University Journal of Research (Letters),
Vol. XVIII, Pt. II, July, 1970.
Pages 97-102

A COEFFICIENT CORRELATIONAL STUDY OF SOME OF THE APTITUDINAL PRE-REQUISITES OF TECHNICAL EDUCATION IN INDIA

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PURPOSE

Two major factors, generally considered in individual fitness for specific jobs, are *Proficiency* and *competency*. *Proficiency* is the attained skill of the individual in performing the duties of the job, whereas, *competency* is the potentiality of an individual for becoming proficient in the job, and which is inherited by the individual. A large number of factors, both general and specific, which make one competent in a specific job situation, have been identified by a large number of researchers. Some of these factors, for example, are 'general intelligence', 'space relation', and 'mechanical reasoning' etc. Neither all the abilities are found to exist in the same proportion in all the individuals nor all jobs require the same rigid pattern of the same abilities. Jobs vary from job to job and similarly the individuals vary from individual to individual. Therefore, the main aim of this study is to investigate the kind of relationship that exists between 'general intelligence' and 'mechanical reasoning' on one hand, and between 'general intelligence' and 'space relation' on the other hand, in the students of the three branches of Technical Education—Mechanical, Electrical, and Civil—in the University of Roorkee, Roorkee.

HYPOTHESIS

1. "Mechanical reasoning has no relation to space relation."
2. "General intelligence has inverse relation to space relation."
3. "General intelligence has inverse relation to mechanical reasoning."
4. "Mechanical reasoning, space relation, and General intelligence have no relation to extroversion, introversion, and neuroticism."

SAMPLE

To test the above hypotheses 180 students of B. E. Final Year of the University of Roorkee, Roorkee, were included in the sample on the basis of purposive non-probability sampling technique, in view of their age, educational achievement, and socio-economic background. Only those students of B. E. Final Year were retained in the sample whose ages were between 20 to 25 years. It was also carefully planned that all those who were included in the sample had attained minimum 55% marks in their previous examination. The final sample consisted of 60 students from each branch of Technical Education—mechanical, electrical, and civil.

PROCEDURE

Three paper-pencil tests—mechanical reasoning, space relation, and general mental ability—were administered simultaneously to all the three groups of Technical Education, in three different rooms, by three competent test administrators. Mechanical reasoning and space relation tests were locally prepared, having ·88 and ·79 split-half reliability respectively and ·70 and ·65 validity respectively. To measure the level of general intelligence Otis General Mental Ability Test was employed.

STATISTICAL ANALYSIS

The mean academic achievement of the students who offered a course in mechanical engineering is found to be as high as 65·60%. The coefficient of correlation was calculated for space relation and mechanical reasoning, which is as high as ·88. The coefficient of correlation among space relation and Otis test of General Mental Ability, and Mechanical reasoning and Otis are ·90 and ·92 respectively.

The mean academic achievement of the Electrical group is 62·947%. The values of the coefficient of correlations among space relation and mechanical reasoning, space relation and Otis test and mechanical reasoning and Otis Test are ·91, ·79, and ·86 respectively.

The mean academic achievement of Civil engineering group is 63·92%. The values of the coefficient of correlations among space relation and mechanical reasoning, space relation and Otis Test, and Mechanical reasoning and Otis test are ·86, ·91, and ·57 respectively. These results are summarised in table 1 given below :

TABLE 1

Test Score of the Members of the Sample

Items	Mechanical	Electrical	Civil
Mean academic achievement	65·60%	62·94%	63·92%
r Values of SR & MR.	·88	·91	·86
r Values of SR & Otis.	·90	·79	·91
r Values of MR & Otis.	·92	·86	·57

N.B.—SR is space relation and MR is mechanical reasoning.

The coefficient of correlation was calculated for scores of Mechanical reasoning test, Space relation test, and Otis General Mental ability test, achieved by the elements falling in upper quartile and lower quartile, with their scores on Extroversion, Introversion and Neuroticism. All the results are summarised in table 2 A. The means, of upper quartile and lower quartile, of Extroversion, Introversion and Neuroticism are also compared by employing 't' test. The results are summarised in table 2 B.

TABLE 2-A

Showing 'r' Values of MR, SR, and OTIS with Extroversion, Introversion and Neuroticism

Civil Group						Electrical Group						Mechanical Group						Group ←
Lower Quartile			Upper Quartile			Lower Quartile			Upper Quartile			Lower Quartile			Upper Quartile			
Neuroticism	Introversion	Extroversion	Neuroticism	Introversion	Extroversion	Neuroticism	Introversion	Extroversion	Neuroticism	Introversion	Extroversion	Neuroticism	Introversion	Extroversion	Neuroticism	Introversion	Extroversion	Personality Traits →
—·15	—·34	—·31	—·29	·00	—·35	·58	—·51	·08	—·53	—·12	·46	·25	—·23	·67	—·30	—·07	—·16	M.R.
·09	·11	·08	—·72	—·66	—·04	·49	·14	·11	—·29	—·22	·13	—·08	—·09	·28	—·25	·54	—·04	S.R.
·22	·08	·03	·03	—·18	·15	·11	·30	·14	—·24	—·20	—·09	—·31	·01	·33	—·32	·007	·13	OTIS

TABLE 2 B

Table showing C.R. values.

Personality Traits	Mechanical Group			Electrical Group			Civil Group		
	E.	I.	N.	E.	I.	N.	E.	I.	N.
	UQ & LQ	UQ & LQ	UQ & LQ	UQ & LQ	UQ & LQ	UQ & LQ	UQ & LQ	UQ & LQ	UQ & LQ
M.R.	3·51 Sig. at 1%	·21	·66	·76	·51	·02	2·18 Sig. at 5%	·66	3·00 Sig. at 1%
S.R.	1·52	·83	·75	·68	·11	1·01	·37	1·30	3·00 Sig. at 1%
OTIS	2·37 Sig. at 5%	1·33	·17	·00	·40	·97	1·43	1·78	1·05

E=Extroversion. I=Introversion. N=Neuroticism.
M.R.=Mechanical reasoning. S.R.=Space relation.

CONCLUSIONS

The 'r' values of space relation and mechanical reasoning in all the three groups are very high positive values. This means that there is high positive relation among the aptitude of space relation and mechanical reasoning and that the first hypothesis, "there is no relation between space relation and mechanical reasoning" can be rejected.

The second hypothesis, "general intelligence is inversely related to space relation", is also rejected. As the 'r' values for all the three groups are high positive values, i. e. ·90, ·79, and ·91.

The third hypothesis, general intelligence has inverse relation to mechanical reasoning, is also rejected with reference to mechanical group and electrical group, as the 'r' values for these groups are ·92 and ·86 respectively. In civil group the relationship between mechanical reasoning and Otis is ·57, which is not as high as in other two groups. It could be due to the fact that the civil engineering students do not deal with mechanical activities.

The 'r' value of Mechanical Reasoning and Extroversion in Upper Quartile of Mechanical group is —·16 and the 'r' values of Mechanical Reasoning and Extroversion in Lower Quartile is ·67. This means that there is negative relationship between the aptitude of Mechanical Reasoning and Extroversion. As the elements with high mechanical reasoning have negative 'r' value (r= —·16), and the elements with low mechanical reasoning have positive 'r' value (r=·67).

The two means of upper quartile and lower quartile are compared by calculating 't' scores, which is 3·51. It is inferred that the difference between two groups is significant at ·01 level and ·05 level of confidence in favour of the persons falling in lower quartile. It also confirms the above mentioned view that there is negative relationship between the aptitude of Mechanical Reasoning and Extroversion.

The 'r' value of Mechanical Reasoning and Introversion in upper quartile of Mechanical group is —·07, and the 'r' value of Mechanical Reasoning and Introversion in lower quartile is —·23, which again confirms that the persons with high mechanical reasoning are more introvert.

The less neurotic persons have high mechanical reasoning; as the 'r' value of mechanical reasoning and neuroticism in upper quartile of Mechanical Group is —·30, while the 'r' value in lower quartile is ·25.

In the mechanical group the aptitude of space relation has positive relation with Introversion. As the 'r' value in the upper quartile is ·54, and in the lower quartile is —·09.

General Mental ability does not play any significant role in regard to the aptitude of Mechanical Reasoning. As the 'r' values with all the three personality traits are very low positive values or negative values. The difference of the two means is also significant at 5% level, in refference to Extroversion.

The persons with high Mechanical Reasoning are more extrovert, in Electrical Group. As the 'r' values of Mechanical Reasoning and Extroversion in the upper quartile is ·46, while it is ·08 in the lower quartile.

The aptitude of Space Relation is equally distributed on Extroversion. As the 'r' values of S. R. and Extroversion in the upper quartile and the lower quartile are ·13 and ·11 respectively. The difference of the two means, is also insignificant at ·01 level and ·05 level of confidence.

General Mental ability does not play any significant role as for the aptitudes of Mechanical Reasoning and Space Relation are concerned. As the 'r' values in the upper quartile and lower quartile are —·09 and ·14 respectively.

The personality traits of Extroversion, Introversion and Neuroticism have insignificant relationship with Mechanical Reasoning and General Mental Ability in Civil Group of the technical education. But Neuroticism has significant effect on space relation in the Civil Group. As the difference of means of upper quartile and lower quartile calculated by employing 't' test is significant at ·01 level and ·05 level of confidence. The 'r' values of Neuroticism and space relation in the upper quartile and lower quartile are —·72, and ·09 respectively.

This means that there is high negative relation between the aptitude of Space Relation and Neuroticism. The persons with high aptitude of Space Relation are less neurotic.

The forth hypothesis, "Mechanical Reasoning, Space Relation and General Intelligence have no relation to Extroversion, Introversion and Neuroticism, is also rejected.

SUMMARY

A high degree of mechanical reasoning, space relation, and general intelligence are needed in the students of all the three branches—Mechanical, Electrical, and Civil—of Technical Education. But the mechanical reasoning is not as important as are space relation and general intelligence for the students of Civil Engineering.

Agra University Journal of Research (Letters),
Vol. XVIII, Pt. II, July, 1970.
Pages 103-108

SYMBOLISM IN BLEAK HOUSE

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Dickens's Bleak House is a deeply symbolic novel. It embodies his social vision and reveals him a profound social prophet. On the one side is the High Court of Chancery (corruption expressed through the symbolism of 'the ubiquitous fog'), on the other side is the world of Tom-all-Alone's (the breeding-ground of diseases—physical and moral—and the cesspool of all that was filthy and foul in the society of the day), and yet on the other side is the welter of politics represented by duffers and nincompoops like Coodles and Doodles, Buffies and Cuffies.

The central theme of Bleak House is concerned with the moribund legal system. Here Dickens has made a bitter criticism of the antiquated and labyrinthine legal system and has sought to bring into focus the iniquity born of law's delay and obfuscation. Through his bitter attack on the existing legal system, all founded on fact[1], Dickens has asserted that such a system ought to be abolished; it served no useful purpose and was a devil socially. Dickens's social creed is at the very heart of this scathing portrayal. Diana Neill justly observes that "Dickens the social reformer tilted at the vast, apathetic and incomprehensible web woven by a legal system that had lost touch with reality.[2]

Through the symbolism of the ubiquitous 'fog'[3] Dickens has made a thorough exposure of the corruption rampant in the law-courts. The main target of attack are the intricacies of the law which cause intolerable delay, and the scheming lawyers who stand to benefit from the punctilious observance and perpetuation of such a system. In this connection it is important to bear in mind that the year 1852 in which Bleak House appeared, was the time when the Court of Chancery was the topical subject. Dickens brought into the lime-light the iniquities caused by the unending legal cases. The symbolism of the 'fog' enveloping everyone—the Lord High Chancellor and the lawyers[1] — is profound in its effect. This all-pervading fog is symbolic of the corruption that loomed large in the society of the day. Every slice of social life was afflicted with this malady. Even judicial cloisters like the High Court of Chancery were not untainted by the virus of corruption.

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[1] Dickens says in the Preface to Bleak House "........Everything set forth in these pages concerning the Court of Chancery is substantially true, and within the truth."

[2] Neill, S. Diana : A Short History of the English Novel, London, 1952, p. 148.

[3] "Fog everywhere. Fog up the river, where it flows among green aits and meadows: fog down the river, where it rolls defiled among the tiers of shipping and the waterside pollutions of a great (and dirty) city. Fog on the Essex marshes, fog on the Kentish heights. Fog creeping into the cabooses of the collier-brigs.........Fog in the eyes and throats of ancient Greenwich pensioners, wheezing by the firesides of their wards: fog in the stem and bowl of the afternoon pipe of the wrathful skipper, down in his close cabin; fog cruelly pinching the toes and fingers of his shivering little, prentice boy on deck. Chance people on the bridges peeping over the parapets into a nether sky of fog, with fog all around them, as if they were up in a balloon and hanging in the misty clouds." (Bleak House, Ch. I).

There is a blistering criticism of the infinite legal formalities.[2] The rigmarole of the law is such that justice cannot be done. One of the countless glaring instances of the prolongation of legal cases is to be seen in Jarndyce and Jarndyce which "still drags its dreary length before the court, perennially hopeless..... In trickery, evasion, procrastination, spoliation, botheration, under false pretences of all sorts, there are influences that can never come to good."[3] Thus, in the midst of the mud and at the heart of the fog, sits the Lord High Chancellor in his High Court of Chancery as if for its own sake; Dickens further points out that "an interminable suit is a slow, expensive, British constitutional thing."[4] The 'rags and bottleshop' is symbolic of this corrupt world. Its proprietor says that "there is no great odds betwixt my noble and learned brother and myself, they call me Lord Chancellor and my shop Chancery, and we both grub on in a muddle".[5]

In brief, Dickens has assailed the moribund and outmoded legal system. Black rightly observes that "the brilliantly savage assault on the majesty of the law in Bleak House proved an almost unique union of the best political satire and a masterpiece of art. The English legal system, barricated behind centuries of tortuous growth and precedents seemed to defy human comprehension. Law was an obfuscation developed as an art."[1]

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[1] "And hard by Temple Bar, in Lincoln's Inn Hall, at the very heart of the fog, sits the Lord High Chancellor in his High Court of Chancery. Never can there come fog too thick, never can there come mud and mire too deep, to assort with the groping and floundering condition which this High Court of Chancery, most pestilent of hoary sinners, holds this day in the sight of heaven and earth." (Bleak House, Ch. I).

[2] "On such an afternoon some score of members of the High Court of Chancery bar ought to be—as here they are—mistily engaged in one of the ten thousand stages of an endless cause, tripping one another up on slippery precedents, groping knee-deep in technicalities, running their goat-hair and horse-hair warded heads against walls of words and making a pretence of equity with serious faces, as players might. On such an afternoon the various solicitors in the cause, some two or three of whom have inherited it from their fathers, who made a fortune by it, ought to be—as are they not? ranged in a line, in a long matted well (but you might look in vain for truth at the botton of it) between the registrar's red table and the silk gowns, with bills, cross-bills, answers, rejoinders, injunctions, affidavits, issues, references to masters, masters' reports, mountains of costly nonsense, piled before them. (Bleak House, Ch. I).

[3] Bleak House, Ch. I.

[4] *Ibid.*, Ch. II.

[5] *Ibid.*, Ch. V.

With the 'foggy atmosphere of the High Court of Chancery' is linked the world of squalor of the London slums delineated here as Tom-all-Alone's. It should be remembered that the problem of slums which formed the basis of Tom-all-Alone's was a hotly debated subject in 1852. Regarding the metaphorical significance of Tom-all-Alone's Humphry House says that "Tom-all-Alone's is the moral type of a London slum, rather than a carefully documented portrait based on the evidence of reports, but it is described in a frenzy of bitterness, impatience and anger".[2] This part of the story represents the vile and squalid lives of the wretches and dregs of society. The pertinent question is : who created a slum? Nothing but ill-planned industrialisation. And what is a slum after all ? Nothing but the filthy and squalid dwellings of the poor without provision for sanitation, drainage, etc. As Gissing says, London is "a great gloomy city, webbed and meshed, as it were, by the spinnings of a huge poisonous spider sitting in the region of Chancery lane : its inhabitants are blighted, stunted, prematurely old offspring of a town which knows not free air."[3]

Such is the pernicious and morally debasing effect of the slums on those unfortunate creatures who are doomed to live in a slum. Dickens has endeavoured to evoke people's sympathy for the infernal lives of the slum-dwellers. There is bitterness in Dickens's tone of protest against squalor and filth. The picture of London is one of an industrial city rotting, festering and swarming. Tom-all-Alone's is typical of the slumland that prevailed:

"It (Tom-all-Alone's) is a black delapidated street, avoided by all decent people.....These tumbling tenements contain, by night, a swarm of misery. As on the ruined human wretch vermin parasites appear, so these ruined shelters have bred a crowd of foul existence that crawls in and out of gaps in walls and boards: and all coils itself to sleep, in maggot numbers, where the rain drips in, and comes and goes fetching a carrying fever and sowing more evil in its every footprint than Lord Coodle and Sir Thomas Doodle, and the Duke of Foodle, and all the fine gentlemen in office, down to Zoodle, shall set right in 500 years—though born expressly to do it."[4]

Besides the problem of over-crowding and cellar-dwelling, there was a serious problem of the disposal of the dead. The reports of health and sanitation reveal that burial-grounds added to the horror of town life. Dickens has given a grim account of a burial-ground where Lady Dedlock goes to visit the grave of her lover:

"The gate was closed. Beyond it was a burial-ground—a dreadful spot in which the night was very slowly stirring, but where I could dimly see heaps of dishonoured graves and stones, hemmed in by filthy houses with a few dull lights in their windows and on whose walls a thick humidity broke out like a disease. On step at the gate, drenched in the fearful wet of such a place, which oozed and splashed down everywhere, I saw with a cry of pity and horror, a woman lying—Jenny, the mother of the dead, child."[1]

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[1] Black, E. C. : British Politics in the 19th Century, London, 1970, p. 244.

[2] House, Humphry: The Dickens World, London, 1960, pp. 193-94.

[3] Gissing, George: The Immortal Dickens, London, 1925, pp. 228-29.

[4] Bleak House, Ch. XVI.

In such a foul, foetid, and filthy environment lived the mass of poor men. The effect of such a polluted atmosphere is to be seen in the physical, mental and moral decay of the inhabitants. Dickens pleads that plague-spots like Tom-all-Alone's must be removed from the face of the earth, because it is from here that social and moral gangrine originates. It has destroyed the creatures living in it, it will also destroy the upper-classes. The world of Chancery and Chisney Wold are suffering from the vices of corruption and hypocrisy and that of Tom-all-Alone's from filth and disease. Dickens warns that Tom-all-Alone's will recoil on all:

"Tom has his revenge ...There is not a drop of Tom's corrupted blood but propagates infection and contagion somewhere....There is an atom of Tome's slime, not a cubic inch of any pestilential gas in which he lives, not one obscenity or degradation about him, not an ignorance, nor a wickedness, not a brutality of his committing, but shall work its retribution, through every order of society upto the proudest of the proud, and to the highest of the high. Verily, what with tainting, plundering, and spoiling, Tom has his revenge."[2]

Jo. the crossing-sweeper is a creature of the slum. He is the living incarnation of what a slum makes of man. The slum called Tom-all-Alone's whose contamination he had imbibed, consumed his body and soul. It has retarded the growth of his body and stifled his moral being. He is one who is "dirty, ugly, disagreeable to all the senses, in body a common creature of the common streets, only in soul a heathen. Homely filth begrims him, homely parasites devour him, homely sores are in him, homely rags are on him: native ignorance, the growth of English soil and climate, sinks his immortal nature lower than the beasts that perish; stand forth, Jo, in uncompromising colours. From the sole of thy foot to the crown of thy head, there is nothing interesting about thee."[3]

"It is surely a strange fact," says Dickens, "that in the heart of a civilized world this creature (Jo) in human form should be more difficult to dispose of than an unowned dog."[4] Jo is the "outlaw with the broom."[5] He sweeps his crossing all the day unconscious of the link. He lives in a vile place known to the like of him by the name of Tom-all-Alone's. He fights it out at his crossing among the mud and wheels, horses, whips, and umbrellas, and gets but a scanty sum to pay for the unsavoury shelter of Tom-all-Alone's. Here Dickens has come out to champion the cause of the wretches like Jo who are "like a growth of fungus or any unwholesome excrescence produced there in neglect and impurity.[1]" The infernal world of Tom-all-Alone's in which Jo is doomed to live, is the creation of the so-called decent and civilized society. He, like a dark thread, runs through the whole fabric of the novel. Dickens has expressed bitter indignation in depicting the portrait of Jo.

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[1] *Ibid.*, Ch. LIX.
[2] *Ibid.*, Ch. XLVI.
[3] *Ibid.*, Ch. XLVII.
[4] *Ibid.*,
[5] *Ibid.*, Ch. XVI.

Ivor Brown points out that "In a book whose principal colouring is sepia the existence of the perplexed illiterate half-starved Jo is presented with master strokes of anger and of pity."[2] Dickens pleads with utmost fervour maintaining that civilization does not consist in material aggrandisement but in the liberation of sufferers like Jo. In brief, the social purpose of the novel is served by a sympathetic portraiture of Jo whose being is permeated with the squalor of a London slum.

Another important problem dealt with in Bleak House is the political muddle and jobbery prevalent in the Victorian age. It is true that despite tall talk and vociferous propaganda about political reform and change, politics presented a picture of confusion. The welter of politics aroused Dickens's ire. He was very severe on vociferous and gaseous politicians and parliamentarians because they talked unctuously and glibly about changes in the political structure. Politics had become the handmaid of self-seekers, usurpers and speculators. "So politics for him (Dickens)," says Brown, "were not the battle of polling-booths, which he believed to be a sham fight......He wanted clean air instead of fetid vapours in the streets and had only contempt for the hot air of oratory on the hustings and in the Houses of Parliaments.[3]"

Dickens made a bitter onslaught on political humbug, jugglery and so on. "His way was to denounce the twaddle spoken by the more gaseous politicians to show up the parliamentary leaders as a gang of duffers who had only brains enough to see that their party game was maintained with one or other of their cliques to control the play."[4] Therefore, in order to express his contempt for such politicians he coined names like Coodles and Doodles[5] presenting an interesting image of nincompoopery. There is a graphic portrayal of political manoeuvring and instability—all emanating from cliquism and horse-trading in politics.

"England has been in a dreadful state for some weeks, Lord Coodle would go out, Sir Thomas Doodle wouldn't come in, and there being no body

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[1] *Ibid.*, Ch. XLVI.

[2] Brown, Ivor: Dickens in His Time, London, 1965, p. 205.

[3] *Ibid.* p. 22.

[4] *Ibid.*

[5] Bleak House, Ch. XII (Coodle, Doodle, Foodle, Goodle, Hoodle, Joodle, Koodle, Loodle, Moodle Noodle, Poodle, Soodle; Cuffy, Duffy, Fuffy, Guffy, Huffy, Juffy, Kuffy, Luffy,Muffy, Puffy.)

(in Great Britain) except Coodle and Doodle, there has been no government.. But Coodle knew the danger and Doodle knew the danger and all their followers and hangers-on had the clearest possible perception of the danger. At last Sir Thomas Doodle has not only condescended to come in, but he has done it handsomely, bringing in with him all his nephews, all his male cousins, and all his brothers-in-law. So there is hope for the old ship yet."[1]

It was tragic indeed that nincompoops like Coodles and Doodles administered the government. However, the Opposition also represented by another set of nincompoops—Buffies, Cuffies, etc—was no better. They all—Coodles, and Doodles, Buffies and Cuffies—duped and defrauded the masses by their unctuous speeches. The result was that the political institutions continued to stagnate. Dickens had correctly asserted that "in Bleak House I have purposely dwelt upon the romantic side of familiar things".[2] It can clearly be seen that symbolism is integral to the novel.

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[1] Bleak House, Ch. XL

[2] Preface to Bleak House, 1853.

Agra University Journal of Research (Letters),
Vol. XVIII, Pt. II, July, 1970.
Pages 109–114

CHILDREN'S CRY OF ANGUISH IN DICKENS'S NOVELS

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Dickens's passionate sympathy for poor, maltreated, destitute and repudiated children constitutes the bulwark of his vigorous campaign to expose brutalities and hypocrisy of the age. It is indeed true that Dickens has given an articulate expression to children's cry of anguish. "It is significant," says Walter Allen "how often a child, terrified, unwanted, helpless, is at the heart of Dickens's novels"[1] It must also be borne in mind that Dickens's own bitter experience in the blacking warehouse[2] went a long way to sharpen his sympathies for the poor and uncared for children. He had known only too well children working sixteen hours a day in factories and mines and dying of starvation. He made an impassioned appeal to people's social conscience; he had seen with disgust and rage so much suffering inflicted on these children by their parents, guardians, teachers and employers. In this respect many of his novels are the expression of his agonised soul.

It may be noted that society as a whole was callous and hostile to children. The vehemence with which Dickens fought for the liberation of the unfortunate children, shows Dickens as an ardent champion of children. Philip Collins puts Dickens in the category of Shaftesbury who was known as 'the children's champion'. Collins holds that "Dickens in the literary world corresponds......to Shaftesbury in the political."[3] Dickens has exhibited utmost sympathy in the treatment of unwanted and repudiated children in his novels. His contribution in the awakening of public conscience to children in distress is great indeed. He declared :

"Let the reader go into the children's side of any prison in England, or I grieve to add, of many workhouses, and judge whether those are monsters who disgrace our streets, people our hulks, and penitentiaries, and overcrowd our penal colonies, or are creatures upon whom we have deliberately suffered to be bred for misery and ruin."[1]

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[1] Allen, Walter : Six Great Novelists, London, 1960, p. 110.

[2] The blacking warehouse episode made an indelible impression on the young Dickens. He says : "No words can express the secret agony of my soul...............That I suffered in secret,............no one ever knew but I. How much I suffered............utterly beyond my power to tell." —David Copperfield, Ch. XI.

[3] Collins, Philip. : Dickens and Education, London, 1964, p. 179.

Oliver Twist is Dickens's first great novel in which a child's cry of anguish evokes crowning touch of pathos. As Walter Allen remarks, "It (Oliver Twist) it the abandoned child's cry of anguish at the inhumanity which he is subjected, scorched and orchestrated by a composer of genius, and the child's cry becomes an arraignment of the age. Oliver Twist was written to shock and still shocks."[2] Oliver, an orphan unwanted and abandoned child[3] subjected to all sorts of tortures in the workhouse, provoked Dickens into pouring out his bitterness and indignation against the heartlessness of the people managing such institutions. In the workhouse children were treated as 'offenders' and 'culprits', nay as 'dogs'. Dickens's vitriolic bursts forth when a plateful of coarse broken victuals rejected by the dog was set before Oliver : "I wish some well-fed philosopher, whose meat and drink turn to gall within him, whose blood is ice, whose heart is iron, could have seen Oliver clutching at the dainty viands that the dog neglected."[4]

When Oliver suffered tortures of slow starvation for three months he ventured for more gruel "horror was depicted on every countenance" in the workhouse and the calamity that befell him was terrible. Kettle justly observes that "we care, we are involved, not because it is Oliver........but because every starved orphan in the world, and indeed everyone who is poor and oppressed and hungry is involved."[5] Oliver just escaped chimney-sweeping and fell into the criminal underworld swelled and vitiated by thieves and social pests. This underworld is the breeding ground of greed, cruelty, immorality and what not, and is teeming with creatures like Fagin Sikes, Nancy, Charley Bates, etc. Oliver's entry into and escape from this vicious world is indicative of Dickens's attitude to crime and criminals. Through the vicissitudes of Oliver Dickens shows "the principle of good surviving through every adverse circumstance, and triumphing at last."[6]

In Nicholas Nickleby the problem of maltreated children has been dealt with. In his bitter attack on Yorkshire schools Dickens has drawn pointed attention to the unwanted and loveless children. There is an exposure of Squeezers' Academy, Do the boys Hall. In this novel Dickens struck a blow, as he indicated in the Preface, for sake of the bullied, unwanted and unloved children. The Squeezers are painted as Ogres who "viewed the boys in the light of their proper and natural enemies......they held and considered that their business and profession was to get as much from every boy as could by possibility be screwed out of him."[1] In the 8th chapter of the novel there is a painful picture of the pitiable condition of the children. Dickens reflects on the dismal scene with passionate sympathy.

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[1] Preface to Martin Chuzzlewit.

[2] Allen, Walter, : Six Great Novelists, London, 1960, pp. 114.15.

[3] "Oliver fell into this place......a parish boy child—the orphan of a workhouse—the humble half starved drudge—to be cuffed and buffeted through the world—despised by all and pitied by none." (Ch. I.)

[4] *Ibid*, Ch. IV.

[5] Kittle, Arnold : An Introduction to the English Novel, Vol I, London, 1951, p. 125.

[6] Preface to Oliver Twist.

"With every kindly sympathy and affection blasted in its birth, with every young and healthy feeling, flogged and starved down, with every revengeful passion that can fester in swollen hearts eating its evil way to their core in silence, what an incipient Hell was breeding here !"[2]

Smike who is an unwanted child, is a victim of brutal treatment. His death was solely owing to the wickedness and neglect of his father and teacher. This is how these institutions were blighting the future of children.

The Old Curiosity Shop is the moving story of a young girl named Nell who was haunted by hunger and destitution and too soon her race was run. The money-grabbing society that came in the wake of industrialisation, had become utterly insensitive to the hardships of little children. As Margaret Lane observes, "The early Victorian England in which she wanders was indeed and in many respects a savage place, in which a homeless and penniless girl of fourteen would almost certainly have been debauched and destroyed and no one would have cared and few if any persons would have been any wiser. "[3] Little Nell is like an 'angel' and Daniel Quilp a symbol of bloated prosperity and an 'ogre'. The sinister motives of Quilp on Nell are obvious throughout the novel; his ominous shadow follows close upon her heels. Dickens pictures the scene when Nell dies :

"She seemed a creature fresh from the hands of God, and......she was dead....and still her former self lay there, unaltered in this change........so shall we know the angels in their majesty after death."[4]

In Dombey and Son Dickens deals with the problem of a hopeless child, though of rich and ambitious parent. Paul Dombey lost his mother when only a new-born child. He is brought up with utmost care and delicacy with the result that he grows into a frail, sensitive boy. His father who is wealthy and proud and worships only one God—wealth—focuses his whole love and hope on this child. He is naturally overwhelmed by the great things expected of him within the shortest time possible. With a view to realizing his dreams the little Paul is kept under the tutelage of Mrs. Pipchin who is nothing sort of an 'ogress'. Soon after he is sent to Dr. Blimber's School where the terrible strain of harsh discipline plays havoc with his body and mind. He gradually sickens and dies. None but his father who represents industrial affluence, is responsible for Paul's death. Dickens has depicted the human aspect of the story and has shown great sympathy for Paul as a child and not as the son of a magnate.

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[1] Nicholas Nickleby, Ch. VIII.

[2] *Ibid.*

[3] Lane, Margaret, : Introduction (The Old Curiosity Shop), London, 1968, p. viii

[4] The Old Curiosity Shop, Ch. LXXI.

In David Copperfield there is a remarkable picture of the feelings of the child—David who is rejected, harassed, and cruelly treated. The undertone of Dickens's own autobiographical touch in the story has made David's story more interesting. In other words, it is the story of an abandoned child who had to undergo hardships at a very tender age. David says about his step-father Murdstone : "......the influence of the Murdstones upon me was like the fascination of two snakes on a wretched young bird."[1] Murdstone tells David bluntly ;

"David, if I have an obstinate horse or dog to deal with, what do you think I do?......I beat him...... I make him wince and smart. I say to myself, "I'll conquer that fellow," and if it were to cost him all the blood he should do it......"[2]

He gives lessons to David with the help of "a lithe and limber cane," and says : "I tell you, Clara, I have been often flogged myself." Besides David's harsh treatment at home, his experience at Salem House Academy as a student is one of the bitterest. It is however evident that Dickens has projected into the story his own loveless childhood. His bitter experience in the blacking warehouse has been transformed in this novel. His words—"No words can express the secret agony of my soul"—Strike utmost pathos in the hearts of the readers. He knew it only too well what it was to be a child in poverty.

Jo in Bleak House is one of the most pathetic child characters that Dickens has created. He is a crossing-sweeper, an 'outlaw with a broom', whose life began and ended in a slum. Jo is the living incarnation of what a slumland makes of man. For instance, the slum called Tom-All-Alone's consumed his body and soul. Ivour Brown points out that "in a book whose principal colouring is sepia the existence of the perplexed illiterate halfstarved Jo is presented with master strokes of anger and of pity."[3] Dickens pleads with utmost fervour that civilization does not consist in material aggrandisement but in the libration of sufferers like Jo. The social purpose of the novel is served by a sympathetic portraiture of Jo whose being is permeated with the squalor of a London slum.

Hard Times shows children as the victims of misapplied utilitarian Philosophy. In Gradgrind's dominion of 'facts' there is no room for the display and development of childlike nature. In his model school savagery of facts reigns supreme. The teacher is a mere automaton and little pupils 'little pitchers' to be filled with facts shutting out tender young imagination of these children. Mr. Gradgrind brings up his children in a manner consistent with his philosophy of facts. His daughter is 'metallurgical Louisa' and his son 'mathematical Thomas', He advises his daughter, "never wonder........never wonder. By means of addition, substraction, multiplication and division and settle everything somehow, and never wonder."[1]

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[1] David Copperfield, Ch. IV.

[2] *Ibid*

[3] Brown, Ivor : Dickens in His Time, London, 1965, p. 206.

The marriage between the young tender girl Louisa and the old Bounderby speaks of a father's bleak unconcern about his children's happiness. Louisa says to her father, "you have been too careful of me that I never had a child's heart. You have trained me so well that I never dreamed a child's dream. You have dealt with me, father, from my cradle to this hour, that I never had a child's belief or a child's fear."[2] Here Dickens expresses his bitter indignation against heartlessness of parents. Louisa curses her father for having wilfully taken away the affection and throbbings of the human heart. She asks him:

"Where are the graces of my soul? Where are the sentiments of my heart? What have you done, oh, father, what have you done, with the garden that should have bloomed once, in this great wilderness here? .... All that I know is, your philosophy and your teaching will not save me. Now, father, you have brought me to this. Save me by some other means."[3]

So saying Louisa falls and in this fall of Louisa Gradgrind "saw the pride of his heart and the triumph of his system lying, an insensible heap at his feet."[4]

It is thus evident that Dickens has made a bitter indictment against the Victorian industrial society inflicting so much cruelty on children. Dickens was one of the greatest campaigners for the emancipation of children.

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[1] Hard Times, Bk. I, Ch. VIII.

[2] *Ibid*, Bk. II, Ch. XII.

[3] *Ibid.*

[4] *Ibid.*

Agra University Journal of Research (Letters),
Vol. XVIII, Pt. II, July, 1970.
Pages 115—120

THE 'NEW CRITICISM'

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Its British Origins

In the Victorian age and until about the third decade of the present century the dominant forms of criticism were the moralistic, the historical, and the biographical. The moralistic criticism values literature, and art in general, for the good it promotes; the historical regards it as a 'historical object[1], conditioned by the place and time in which it is produced; and the biographical considers a knowledge of the author's life essential to the understanding of his work. In the period under review Carlyle, Ruskin, Matthew Arnold, and Bernard Shaw may be cited as examples of the moralistic attitude towards literature; Arnold also of the biographical; and Leslie Stephen, George Saintsbury, and Edmund Gosse of the biographical-historical. In the thirties of the present century all these factors began to be challenged as 'extrinsic' to the interpretation of literature. The ball may be said to have been set rolling by T.S. Eliot who decided the claims of morals, biography, literary history, and aesthetics in the criticism of literature, and particularly of poetry, in the following words: "When we are considering poetry we must consider it *primarily as poetry and not another thing*....It will not do....to call it a 'criticism of life', than which no phrase can sound more frigid to anyone who has felt the full surprise and elevation of a new experience of poetry. And certainly poetry is not the inculcation of morals, or the direction of politics; and no more is it religion or an equivalent of religion, except by some monstrous abuse of words. And certainly poetry is something over and above, and something quite different from, a collection of psychological data about the minds of poets, or about the history of an epoch; for we could not take it even as that unless we had already assigned to it a value *merely as poetry*....We can only say that a poem, in some sense, has *its own life*; that its parts form something quite different from a body of neatly ordered biographical data; that the feeling, or emotion, or vision, resulting from the poem is something different from the feeling or emotion or vision in the mind of the poet."[2]

In his *Practical Criticism* (1929) I.A. Richards, whose approach to literature is otherwise different from Eliot's, also believes like him that a poem exists independently of its historical or other context. One of the three objects with which he wrote that book was to train readers to respond to poems as such, without reference to their author, period, or school: "*to discover for themselves* what they think and feel about poetry."[1] He was followed in this 'game of interpretation'—the words are his own—by a disciple, William Empson, who practised it in his *Seven Types of Ambiguity*, published in 1930. In it with no 'extrinsic' aid he demonstrates how poems can be better apprehended merely by a close attention to their words and structure. In 1932 F. R. Leavis, a professed follower of T. S. Eliot, also started the *Scrutiny* to offer, among other things, an 'analysis and interpretation' of literary works 'with a view to judgement.'[2] As far as possible, he disentangled criticism from literary history and biography. "I have endeavoured," he says in the first book he published the same year, "to confine myself as strictly as possible to literary criticism, and to remember that *poetry is made of words*".[3] Even when he deals with the poetry of the past, as in *Revaluation* (1936), he does not treat it as a 'historical object' but endeavours to see its relevance in the present—whether "it is alive for us".[4]

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[1] Helen Gardner : *The Business of Criticism*, p. 17

[2] Preface to the 1928 edition of *The Sacred Wood* (italics mine).

By these stages criticism in England took a new turn in the early thirties of the present century. Gradually it claimed followers in America where it came to be called the 'new criticism' and has been the dominant form since the late thirties.

Its Development in America

It was introduced in America by John Crowe Ransom, a Professor of English in Tennessee and Ohio, who made it his way of teaching. In 1941 he expounded its theory in his most important book, *The New Criticism*. Eschewing recourse to all external aids—the life of the author, his times, his school, his intention—he concentrates his attention on 'the work itself' to determine its worth. He divides it into its texture, or the details it is made of, and structure, or their logical arrangement. He discovers 'tensions' or apparent contradictions in the texture which it is the business of the structure to resolve. In a successful composition, as in a comedy, the resolution is complete, making its reading a stimulating experience. The method envisages the closest scrutiny of the parts and their interconnections to determine the meaning of the whole. 'Explication', thus, is the chief business of the new criticism: scrutinising poems or passages from other works by first looking for the baffling features in them—ambiguity,[5] irony,[6] paradox[7]—and then finding out whether they are, or not, harmonised. As Helen Gardner disparagingly puts it: "It is a part of the game of 'explication', as it has developed, to begin by expressing complete bafflement....Then after every kind of obtuseness has been exhibited and all possible interpretations and misinterpretations have been considered, the true explication rises like the sun out of foggy mists."[1]

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[1] p. 3 (italics mine).

[2] *Scrutiny* Vol. I, No. 1, p. 5.

[3] *New Bearings in English Poetry*, p. 2 (italics mine)

[4] p. 2.

[5] Multiple implications.

[6] The very opposite of the expected.

[7] 'A statement which is preposterous and yet true' (Cleanth Brooks in "Keats's Sylvan Historian" in *The Well Wrought Urn*.

Ransom has been followed in this approach by Allen Tate, Robert Penn Warren, Cleanth Brooks, Rene Wellek, Austin Warren, W. K. Wimsatt Jr, and others. Among the notable works expounding or exemplifying the approach may be mentioned Cleanth Brooks and Robert Penn Warren's *Understanding Poetry* (1938) and *Understanding Fiction* (1943), Allen Tate's *Reason in Madness* (1941), Cleanth Brooks and Robert Heilman's *Understanding Drama* (1945), Cleanth Brooks's *The Well Wrought Urn* (1947), Rene Wellek and Austin Warren's *Theory of Literature* (1949), and W. K. Wimsatt's *The Verbal Icon* (1954). In their *Theory of Literature* Wellek and Warren thus sum up the stand of the new critics: "The natural and sensible starting point for work in literary scholarship is the interpretation and analysis of the works of literature themselves. After all, only the works themselves justify all our interest in the life of an author, in his social environment and the whole process of literature. But, curiously enough, literary history has been so preoccupied with the setting of a work of literature that its attempts at an analysis of the works themselves have been slight in comparison with the enormous efforts expended on the study of environment..The old methods of classical rhetoric, poetics, or metrics.. must be reviewed and restated in modern terms."[2] Although the new critics themselves differ in the ways they adopt to analyse literary works, their basic stand is the same—the rejection of all 'non-artistic' criteria like literary history, biography, the writer's school, his intention, and so on. The 'work itself'—its words and structure—is their sole concern. A well wrought urn—this is what they expect a good poem, play, or novel to be. The new criticism, therefore, is also called the aesthetic, the formalistic, and the textual.

The 'New Criticism' and the Chicago School

The basic concepts of the new criticism are also shared by the Chicago school of critics, led by Ronald S. Crane, such as the close study of the text and its verbal and structural analysis, to the exclusion of its historical, biographical, social, moral, and other implications. But while the new critics in their preoccupation with the internal analysis of a work do not even bother to consider whether it is a poem, a play, or a novel, the Chicago critics insist on this distinction. A work's excellence, they hold, cannot be truly appraised unless it is borne in mind what species it belongs to. For the nature and requirements of each species being different, the critic cannot appraise a poem in the same way as a play, a play in the same way as a novel, and so on. He has to determine whether it is 'well wrought' as a specimen of its own species. This revives the

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[1] *The Business of Criticism*, p. 54.

[2] pp *139-40*.

Aristotelian classification of literary compositions and the rules thereof, however liberally conceived, on which account the Chicago critics are also called the neo-Aristotelians. To the new critics even this proviso is as extraneous to the consideration of the merit of a work as the other factors they reject. For, the work may have elements not required by its species or may modify its traditional form altogether, thus necessitating its appraisal by itself.

Unlike the new critics, again, the Chicago critics do not completely rule out the value of the historical, biographical, or other factors in the study of a work. While, even according to them, these are not necessary to the determination of its 'intrinsic' merit, they do lend it an extra or supra-aesthetic significance. Is it not a welcome feature, they argue, if a work is both intrinsically excellent and has an added significance—historical, social, moral? Aristotle also considered the moral pleasure accruing from a work as superior to the purely aesthetic, because it serves a dual purpose—that of aesthetics (since it is pleasure) and of morality. The new critics are not prepared to make even this much allowance. To them a 'well wrought urn' is satisfying by itself even though, as Helen Gardner says, it may contain ashes.[1] These are, however, but little points of difference between the new critics and the Chicago school, otherwise, as already stated, their basic approach to literature is the same—the determination of its excellence by a close analysis of its words and structure.

The Limitations of the 'New Criticism'

By ignoring the conditioning circumstances of a work-historical, biographical, social—and considering it by itself, the new critics almost suppose it to be self-created or (to employ Trinculo's words in *The Tempest*) a 'tune played by the picture of Nobody'. Their analysis of it, therefore, leaves out much that makes it what it is. They need to be reminded that "every work of art is the product of a point in space and time, in so far as it would certainly have been different if it had appeared in any other place and time. It could not have been what it is but for the art which went before it. We ourselves see it through our knowledge and experience of what has come after it. It is historical also as the product of a mind which grew through particular experiences and not through others; and each particular work has an historical relation to its author's other works."[2]

Nor can the higher values which a work promotes be considered alien to its excellence, which consists as much in what it says as in how it says it. The new criticism, by its preoccupation with the latter, completely ignores the former, even though it may be a factor in the total appeal of the work. Even T. S. Eliot, to whose earlier pronouncements the new criticism owes its rise, concedes that "the 'greatness' of literature cannot be determined solely by literary standards; though we must remember that whether it is literature or not can be determined only by literary standards.[3] F.R. Leavis also, whose method the American new critics have developed, values no writing that does not induce an "awareness of the possibilities of life."[1]

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[1] *The Business of Criticism*, p. 21

[2] Helen Gardner : *The Bussiness of Criticism*, pp. 17–18.

[3] The essay on "Religion and Literature" in *Essays Ancient and Modern* (1936)

Another drawback of the neo-critical approach to a work arises from the very closeness of its examination of it. Mere parts—word, phrase, passage—are subjected to such a thorough scrutiny that one forgets what the whole is about. The technique is better suited to the explication of works of a limited length, such as short poems, where the parts cannot be easily isolated from the whole.

Finally, the claim of the new critics to interpret a work purely in terms of itself is falsified by their constant search in it for tension, ambiguity, irony, and paradox—terms peculiar to this school. By doing so they view the work not 'as it is' but for just these things which, *in their opinion*, constitute its total artistic character. The technique is also, sometimes, as mechanically applied as the neo-classical rules once were. But, at its best, the new criticism does shed a new light upon many a dark corner.